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ABSTRACT

This module is the second in an inservice education series for extension professionals that consists of seven independent training modules. It is an introduction to, and guided practice in, the premises, concepts, and processes of nonformal extension education--planning, designing and implementing, and evaluating and accounting for extension education programs. The six units of the 24-hour workshop are on the following subjects: planning--the organization and its renewal process; planning--linking the institution with its publics; designing the planned program; implementing the planned program; program evaluation; and accountability. The module consists of five major parts. The sourcebook includes the conceptual content, overall purposes and objectives, a selected annotated bibliography (99 items), and a list of 46 references. The leader's guide provides instructions on preparing for and conducting the units and suggestions for creating a learning environment that models adult education principles. The case study is representative of a realistic county setting and provides a common data source for use with many of the workshop activities. The learner's packet includes materials to be used during the workshop. The last section lists instructional aids--videotapes, slide sets with audiotapes, and a computer disk--and provides a reprint of an article on objectives and masters for producing overhead transparencies. (YLB)

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Working With Our Publics

In-Service Education
for Cooperative Extension

Module 2
The Extension Education Process

Developed by: R. David Mustian, State Leader of Evaluation
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Edgar J. Boone, Project Director

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To order materials or to request information about this module, or the entire series, *Working With Our Publics: In-Service Education for Cooperative Extension*, write to:

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Foreword

Welcome to *Working With Our Publics: In-Service Education for Cooperative Extension.* Those who have been involved in developing this project look forward to your participation as a way of bringing it full circle—back to the state and county Extension educators whose requests for help in their changing professional roles initiated the materials you are working with today.

This in-service education series has been supported by the W. K. Kellogg Foundation, ECOP, the ECOP Subcommittee on Personnel and Program Development, ES-USDA, and all of the state and territorial Extension services and their directors. Each of these groups hopes you find the training a rewarding and enjoyable experience.

Working With Our Publics was made possible through its many supporters and participants, a few of whom are mentioned here. Initial support by Mary Nell Greenwood was crucial, as has been the continuing involvement of Administrator Myron Johnsrud. The ECOP Subcommittee on Personnel and Program Development has guided every step of the project. M. Randall Barnett, Terry L. Gibson, W. Robert Lovan, Ronald C. Powers, and Leodrey Williams deserve special mention, as does Connie McKenna, whose untold hours of work and miles of travel made sure it all fell into place.

The expertise, leadership, proficiency, and hours of work devoted to the project by the developers of the seven modules—David R. Sanderson, Richard T. Liles and R. David Mustian, Lee J. Cary and Jack D. Timmons, Laverne B. Forest, Betty L. Wells, Verne W. House and Ardis A. Young, and J. David Deshler, respectively—brought it all together.

It is obvious that *Working With Our Publics* would not have come into being without the financial support of the W. K. Kellogg Foundation. What may not be so immediately obvious is the continuing interest, support, and dialogue provided by the Foundation through its president, Norman A. Brown.

The many state and county Extension professionals who took part in this project as writers, researchers, reviewers, and field test participants in the individual modules are gratefully acknowledged.

As project leader, I would like to acknowledge here the support given to the entire series by North Carolina Agricultural Extension Service Director Chester D. Black. Grateful recognition is given to a long-time colleague and collaborator in many writing projects, Adele P. Covington, who was principal editor for the series. Valuable contributions to the development were made by Joan Wright (California), Lee Hoffman (Washington, D.C.), Brian Findsen (New Zealand), Heriberto Martinez (Puerto Rico), and in the later phases by Janice L. Hastings (New Hampshire), Jo Jones (Ohio), John M. Pettitt, John G. Richardson, and Frank J. Smith (North Carolina). David M. Jenkins, Department Head, and the staff of North Carolina State University's Department of Agricultural Communications deserve special thanks for their outstanding performance in publishing the modules.

Working With Our Publics is designed to increase your knowledge and skills for work with your changing clientele in today's social environment. It also will help you, as a member of the Extension team, to work with the imperative issues facing the Cooperative Extension System, as well as to expand those skills as an Extension educator that are a necessary complement to your other technical and administrative roles.

If you are new to the practice of Extension, we hope that you will view these training materials as a greeting and a gesture of support from those who have gone before you. If you are an experienced Extension educator, we hope that you will enjoy this "literary conversation" with your peers. In either case, we are confident that you will find the information and activities presented here to be timely, stimulating, and practical. After all, they were developed by Extension educators!

Edgar J. Boone, Project Director

Assistant Director, North Carolina
Agricultural Extension Service, and
Head, Department of Adult and
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North Carolina State University
Raleigh, North Carolina

Overview of the Series

The series *Working With Our Publics: In-Service Education for Cooperative Extension* consists of seven independent training modules. Based upon needs and objectives identified by Extension professionals, the modules are designed to stand on their own as independent instructional packages, or to be used as a comprehensive series. Very briefly, the modules and their authors are:

Module 1: Understanding Cooperative Extension. The history, mission, values, and networks that make the Cooperative Extension System and the land-grant institutions unique. Participants will examine their own expectations, values, and skills, in light of the System's needs, to ensure a good "fit" between the individual and the organization. (Nine contact hours of training developed by David R. Sanderson, University of Maine at Orono.)

Module 2: The Extension Education Process. An introduction to, and guided practice in, the premises, concepts, and processes of nonformal Extension education—planning, designing and implementing, and evaluating and accounting for Extension education programs. Both new and experienced staff members who complete this module will understand and be able to apply the programming process as it relates to Extension education. (Twenty-four contact hours of training developed by Richard T. Liles and R. David Mustian, North Carolina State University at Raleigh.)

Module 3: Developing Leadership. How to acquire and exercise leadership skills and how to identify, recruit, develop, and work with community leaders. Intended for all Extension professionals, the Module is designed to improve participants' abilities to identify and involve lay leaders in Extension programs and, hence, to develop leadership capabilities among Extension's clientele. (Twelve contact hours of training developed by Lee J. Cary and Jack D. Timmons, University of Missouri at Columbia.)

Module 4: Situational Analysis. How to determine the need for the Extension educator's involvement in issues and to understand the economic, social, political, and environmental contexts in planning, designing, and implementing programs. This Module is designed to provide both new and experienced Extension staff members with an appreciation of the role that analysis plays in programming and decisionmaking, as well as the skills to identify, collect, analyze, and use relevant data in the Extension education effort. (Twelve contact hours of training developed by Laverne B. Forest, University of Wisconsin–Madison.)

Module 5: Working With Groups and Organizations. Development of skills in working with and through groups and understanding the behavior of groups, organizations, and agencies. New and experienced staff members who complete their training will be better able to analyze the behavior of individuals, groups, organizations, and governmental agencies. They will gain the skills to build mutually beneficial working relationships, and to deal with networks of influence and key power actors in client communities. (Eighteen contact hours of training developed by Betty L. Wells, Iowa State University.)

Module 6: Education for Public Decisions. In-service education in analyzing public problems, anticipating the consequences of Extension's involvement in issues, and working effectively in areas of controversy. Personnel who play a part in deciding Extension's involvement will build the knowledge and skills needed to design, deliver, and evaluate educational programs on public issues. (Eighteen contact hours of training developed by Verne W. House, Montana State University, and Ardis A. Young, Washington State University.)

Module 7: Techniques for Futures Perspectives. Information and exercises on working with Extension's publics to achieve a proactive stance toward the future through projecting future conditions, analyzing trends, and inventing futures. All participants, particularly those with a background of field experience, will benefit from enhanced capabilities to develop and provide educational programming that helps clients carry out systematic planning for the future. (Twelve contact hours of training developed by J. David Deshler, Cornell University.)

How to Use This Module

This module consists of five major parts, separated into sections in this notebook. Workshop leaders are urged to become thoroughly familiar with each of these parts well before they schedule training.

Sourcebook. The Sourcebook contains the conceptual content for the Module, the overall purposes and objectives, and a Selected Annotated Bibliography. Workshop leaders can obtain a comprehensive knowledge of the content by studying this section. Providing the Sourcebook to workshop participants before the training can help prepare them for the learning experiences in which they will be involved.

Leader's Guide. The Guide provides instructions on preparing for and conducting the six workshop units. Suggestions are given for creating a learning environment that models adult education principles.

Case Study. The Case Study is representative of a realistic county setting, and provides a common data source for use with many of the workshop experiences. The Leader's Guide provides information on the benefits of using case studies. The Adams County, USA, Case Study also can be used as a model for developing a local case study.

Learners' Packet. All materials, other than the Sourcebook and Case Study, that are intended for distribution to the learners are included in the Learners' Packet. Additional copies may be purchased from the publisher or reproduced locally. Suggestions for when these materials should be used are in the Leader's Guide.

Instructional Aids. The Instructional Aids include videotapes, slide sets with audiotapes, a computer disk, copies of pages from another publication, and masters for producing overhead transparencies. Suggestions about when to use the various aids are included in the Leader's Guide.

Edgar J. Boone, Project Director

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Working With Our Publics

Module 2: The Extension Education Process

Sourcebook

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Introduction to Module 2: The Extension Education Process[1]

Extension education is a process of working with people to help them gain and apply knowledge, solve their problems, and improve the quality of their lives. The Extension education process is dynamic, interactive, collaborative, and facilitative. Extension education is unique in its applicaton of educational principles, drawn from the social and behavioral sciences, to evolve a planned program that has the major elements of program development—program planning, design and implementation, and evaluation and accountability.

Purposes of Module 2

The primary purposes of Module 2 are to:

1. Understand the uniqueness of the practice of Extension;

2. Understand and apply the basic principles of the Extension education process; and

3. Develop and refine the knowledge, skills, abilities, and attitudes Extension educators need to implement the Extension education process.

As practitioners of nonformal adult education, Extension educators must understand how the learner, the Extension educator, the context in which learning takes place, and the content of planned programs influence the Extension education process. In addition, Extension educators need to be committed to the mission, philosophy, and objectives of Extension.

Objectives of Module 2

The objectives of Module 2: The Extension Education Process are:

1. To build Extension educators' understanding of the Extension education process;

2. To build Extension educators' understanding of the assumptions, concepts, and premises that underlie the Extension education process; and

3. To increase Extension educators' skills in implementing the Extension education process.

The Nature, Structure, and Functions of the Extension Education Process

In this section, the Extension education process is defined; planned change and programming are described; and assumptions about programming, planned change, and the Extension education process are introduced. The last part of this section contains the objectives, elements, and principles of the Extension education process.

The Extension Education Process Defined

Extension education is a process of working with people, not for them. The process is one of helping people become self-reliant, not dependent on others. It is a process of making people the central actors in the drama, not stage hands or spectators. It is a process of helping people, through education, to put useful knowledge to work for themselves. Extension education is a process that involves communication of research-based information to learners, who then apply the information to solve problems with which they are confronted. Thus, Extension education is a process of interactive and problem-solving programming that has as its focus, planned change.

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[1] The Module developers are grateful for the advice and assistance of Dr. E. J. Boone, whose conceptual model for programming formed the base for this Module and is used throughout the Cooperative Extension System (E. J. Boone, *Developing Programs in Adult Education*. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1985.)

Planned Change

Planned change refers to the purposeful alteration of the way people think and behave, or the way they structure or organize their lives. The success of Extension education is directly related to the degree of planned change that is an outcome of the educational process. Bennis and his co-workers (1969, p. 4) describe planned change as a "conscious, deliberate, and collaborative effort to improve the operations of a human system, whether it be a self-system, social system, or cultural system, through the utilization of scientific knowledge." For example, the emphasis may be on change in the individual dairy farmer's knowledge of how to control for mastitis; a group of dairy farmers in changing sanitation practices; or on changing the method of keeping records for dairy herd improvement.

Planned change in the Extension education process is a collaborative effort among the Extension educator and lay leaders, the learner or learner groups, and systems. Zaltman (1973) emphasizes that people often resist change. He further indicates that people are less likely to resist change when they are involved in decisions about the proposed change; when the change can be tried in parts, rather than the whole; or when the change can be tried on a limited scale. People also need to see the benefits of planned change over current and alternative ideas or practices. People are more likely to accept change, if it is reversible.

If the change is tried, but rejected, can the former behavior be resumed? The more complex the change seems to the learner, the less likely the change will be accepted. The change also needs to be compatible with the learner's lifestyle, and should neither contradict beliefs held by the individual nor cause the individual to have to choose alternatives that may violate his or her psychological, social, or cultural principles. If the planned change is to be accepted, it should be easily communicated, and should involve a minimum of risk and uncertainty for the learner.

The idea of planned change emphasizes that the process is intentional, future-oriented, and moving toward some preconceived end that has been mutually agreed upon through collaboration between the Extension educator and the learners. The preconceived end will be an observable difference in the way the learners behave or organize and structure their lives. Thus, the Extension education process is driven by the notion that people can improve themselves and their circumstances through using innovation, scientific technology, and applying acquired knowledge and practices to their present circumstances. [*Note*: Greater attention to the futuristic aspect of the Extension educator role is spoken to in **Module 7: Techniques for Futures Perspectives**.]

In Extension education, planned change is an outcome of intentional decisions to bring about improvements in the quality of living. Planned change moves the learner from a present level of behavior or circumstances to a more desirable behavior or improved circumstances. In Extension education, planned change also infers a degree of permanence. That is, the behavior or condition remains changed, and does not revert to its former state. Sometimes, intended changes also bring about unintended changes that neither the educator nor the learner anticipate. Thus, those involved in bringing about planned change need to be careful, thoughtful, purposeful, and deliberate, for planned change may involve risk. As pointed out in **Module 1: Understanding Cooperative Extension**, involving people in the planned change process reduces that risk.

Programming

The programming process encompasses all of the planned, coordinated, and collaborative activities of Extension educators, lay leaders, learner groups, and systems (such as neighborhoods, communities, special-interest groups, and the Extension organization). These activities are focused on designing and effecting educational strategies that should culminate in behavioral change in individual learners and within learner groups and systems (Boone, 1985). This conceptualization of programming is consistent with Schroeder's (1980, p. 42) definition of adult education as "a developmental process used to link various agent and client systems for the purpose of establishing directions and procedures for adult learning programs."

Assumptions

Several assumptions undergird this conceptualization of the Extension education process, i.e., assumptions about programming, the planned program, and the Extension educator.

Assumptions About Programming. The following assumptions about programming undergird and permeate the total programming process, beginning with planning and extending through evaluating and accounting for program outcomes (Boone, 1985, pp. 4-5):

> 1. Programming is directed toward change in behavior of the individual adult learner, of learner groups, and of systems.
>
> 2. Programming is a decisionmaking process.
>
> 3. Programming is a collaborative effort involving both the adult education organization and its learners and their leaders in identifying, assessing, and analyzing the educational needs of those learners.
>
> 4. Programming in adult education is a system, that is, its parts . . . are interrelated, ordered, and linked to form a collective whole.
>
> 5. Programming is the principal means by which the adult education organization obtains feedback.

Assumptions About the Planned Program. In addition to assumptions about the programming process, the following are assumptions about the planned program itself (Boone, 1985, pp. 5-6):

> 1. A planned program consists of several universal components that exist at different levels and over different time spans. These components include a description of the needs of individual adult learners and learner groups, a statement of program objectives, and a description of educational strategies to achieve the objectives and to fulfill the stated needs.
>
> 2. A planned program should exist in two time dimensions: a long-range program and short-range plans of action.
>
> 3. A planned program exists in a hierarchical order.

Assumptions About the Extension Educator. The Extension educator influences both the programming process and the planned program. Assumptions that are pertinent to the Extension educator include (Boone, 1985):

1. The Extension educator's role includes that of change agent and programmer.

2. The programmer's personal characteristics and style influence the programming process.

3. The programmer needs a conceptual base from which to operate in the change process.

4. The programmer makes decisions or choices at every stage and step in the programming process.

5. The programmer must be skillful in planning, designing, implementing, evaluating, and accounting for program outcomes.

Objectives of the Extension Education Process

The objectives of the Extension education process (Boone, 1985, pp. 41–42) are to provide:

1. "A logical and rational framework for directing and giving meaning to the efforts" of Extension educators "in effecting programs designed to alter learner behavior."

2. "A means of linking" the Cooperative Extension System to its publics through studying, "analyzing, and mapping . . . its publics."

3. A method of identifying Extension's target publics and their leaders, "and working with leaders and learners of those target publics in collaboratively identifying, assessing, and analyzing the learners' educational needs."

4. "A means of designing and implementing programs to meet those needs."

5. "An arena" for Extension educators to demonstrate "cutting-edge" leadership "and proactive behavior vital to creating long-term and positive effects on the lifestyles of Extension clientele."

6. "An opportunity" for Extension educators "to nurture those conditions that . . . may be brought about or changed through educational programs."

Elements of the Extension Education Process

Four distinct elements constitute and influence the Extension education process: (1) the learner, (2) the Extension educator, (3) the context, and (4) the content. According to Knowles (1967) and Srinivasan (1977), these elements are crucial in nonformal adult education.

The Learner. Learners may be characterized as individuals, groups, families, businesses, or large complex groups such as communities, commodity groups, and agencies. Learner characteristics affect the planning and execution of Extension education. For example, age, sex, level of education, learning preferences, beliefs, values, and internal motivations of the learner are all important.

In designing learning experiences, Extension educators need to consider what the learners need or want to learn; how they want to learn it; and the desired goal or outcome of the process. The learner is an active participant in the process, rather than a passive recipient of information. Because the learner is instrumental in the process, the Extension educator needs to involve the learner in all parts of the process. When planning for large groups, organizations, or communities, their leaders or their representatives must be involved in the total program planning process. The Extension education process is directed toward change in the learner; thus, the learner's needs and problems are the paramount issues.

The learners' participation in the process is an important source of motivation for them. Learners tend to feel ownership for programs in which they have been actively involved. Learners need feedback to reinforce their desired changes in behavior, and to enable them to correct or redirect behaviors that do not lead to desired changes. Learners, themselves, are important resources in the learning process. The learner also needs opportunities to experiment with desired behaviors, to apply information or skills in a variety of situations, and to see immediately any benefits from their application.

Most adult learners prefer to receive information through more than one of the senses. Approaches that present information in ways that stimulate a variety of senses are generally more effective.

Participation in Extension programs is voluntary, and the learners may exit at any time. A major goal of Extension education is to help learners accept responsibility for their own learning. The intent is to move the learner from a position of dependence to one of independence, adequacy, and self-direction.

Learning experiences must be within the range of learner ability. These experiences build upon prior experiences of the learners and help them to make connections between what is learned in different settings, and how to apply or transfer that learning to new situations.

The Extension Educator. The major element or variable in Extension education is the Extension educator. Extension educators generally are professionals, with a minimum of a baccalaureate degree required for those at the local level. More recently, a master's degree for local Extension educators and a doctoral degree at the state level are becoming more common. Traditionally, undergraduate training for Extension educators has been in the areas of the agricultural sciences and home economics. In more recent years, professionals from psychology, sociology, political science, and other disciplines have joined the ranks of Extension educators.

Extension educators who give leadership and implement Extension education are generally located close to learners with the intent of establishing credibility and trust between the learner and the educator. Extension educators at the local level (usually called County Extension agents) have programming support from Extension educators at the state level. Extension subject-matter specialists help keep local Extension educators informed of the latest research-based, technical information. Participation in periodic inservice staff development and renewal activities keeps Extension educators at all levels current in both content and the Extension education process.

A major strength of Extension education is that the local Extension educator is well-grounded in subject matter expertise. However, some professionals in some technical sciences lack mastery of relevant content from the social and behavioral sciences, and educational concepts that must be applied in the practice of Extension. It should be noted that a major purpose of Module 2 is to help Extension educators become more proficient in the educational process or practice of Extension education. It is important that Extension educators learn to draw upon theoretical ideas, principles, and concepts from the field of education and the social and behavioral sciences, and to integrate these ideas, principles, and concepts into their technical content base. Effective Extension educators view themselves as partners and co-learners with their clients in Extension education.

According to Knowles (1970), the successful educator functions as a helper, and approaches the education process as one in which the educator and the learner engage in "mutual inquiry." Rogers and Shoemaker (1971) suggest that the most effective Extension educators are in frequent contact with the learners and operate from the learner perspective. These Extension educators are perceived as credible by their clients, and possess many of the same social and psychological characteristics of the learners with whom they work.

Srinivasan (1977, p. 77) points out that, in many instances, "the people are often their own major resource." With regard to leadership, she notes that educational leadership that is developed from among the learners themselves is often more effective than leadership by "outsiders." [*Note*: **Module 3: Developing Leadership** contains additional information with regard to the development of leadership among learners themselves.] Increasingly within the past several decades, some roles of the Extension educator have been partially augmented by paraprofessionals.

Certainly, part of the success of Extension over the years has been the "missionary zeal" with which Extension educators have committed themselves to "helping people help themselves." Successful Extension educators are committed to the philosophy and mission of Extension, and go about their tasks with an enthusiasm and determination that often overcome any barriers that might surface.

Knox (1980), in describing the adult educator, emphasizes characteristics of the successful Extension educator. These characteristics include skills in planning, implementing, and evaluation change; problem-solving ability; a quest for alternative solutions to problems; understanding the processes related to priority and goal-setting; negotiation skills; ability to manage conflict; ability to influence others; tact; a willingness to take risks; and effective salesmanship.

Boone (1985) describes the role of the adult educator as change agent and helper. He maintains that the adult educator's personal characteristics and style influence the educational process. He also emphasizes the need for a sound conceptual base from which the Extension educator may provide leadership for the educational process. He further characterizes the adult educator as a decision-maker, planner, strategist, diagnostician, and an interpreter of technical information.

The Context. Context refers to the organizational, sociocultural, psychological, and physical environment in which Extension education takes place. The *organizational context* includes the mission, philosophy, functions, structure, resources, and relationships within the Extension organization.

The organizational context of the Extension education process is influenced by the formal organization of the Cooperative Extension System, which is a blending of national, state, and local influences because of the three organizational partners in the system (Boone, 1985). What we can or cannot or should or should not undertake as Extension educators and employees of the Cooperative Extension System also is delineated within the organizational context.

Consider the importance of the organizational-agency context in the following example:

A county committee that is examining the farm stress situation has determined that many farmers in crisis will not admit to or show signs of stress until it is too late. The committee consists of County Extension agents, chairmen of the Agricultural and Home Economics program committees, and representatives from other agricultural programs, farm supply and credit businesses, and the local Farm Bureau.

The committee determines that farm wives are more receptive to help than are their husbands, and that friends are more likely to be able to identify and help families in need. The Farm Bureau representative suggests that Farm Bureau women might be able to help. The organization is approached and they volunteer their assistance.

An Extension specialist in Human Development assists the County Extension Home Economist in designing a training program. The agent, in turn, provides a series of training for the Farm Bureau women, thus creating a number of trained volunteers. These trained volunteers were able to work successfully with the farm wives and their families.

The *sociocultural context* refers to the situation of the learners, e.g., the social structure, the traditions, beliefs, value systems, political atmosphere, and economic conditions, among others. The *psychological context* refers to the level of trust, the degree of safety or freedom from threat, and the level of intimacy. According to Knowles (1970), the ideal educational context is one in which democratic values prevail, along with tolerance for differences and respect for the individual. The attitudes of participants influence the psychological climate, which should foster acceptance, respect, and support.

The importance of the psychological context is seen in the following example:

An EFNEP program assistant has been working with several low-income families that need help with energy conservation methods for their homes. She tells the new Extension Home Economics Agent about this and finds that the Home Economics Program committee has identified weatherization as a countywide need. The agent provides the assistant with flyers on the planned workshops. The assistant is hesitant, but delivers the flyers.

None of the families attended the first workshop, and the agent asks the assistant about their not coming. The assistant is not sure, but she feels that the families were afraid that other people coming to the workshop would want to talk about expensive methods of insulation, storm windows, and alternative energy. With the assistant's help, the Home Energy Committee plans programs for low-income communities that will be less psychologically threatening; will emphasize less expensive techniques of caulking, weather-stripping, and other materials; and will be based on learners' resource potential.

The *physical environment*, or the setting in which the educational program takes place, has much influence on the process (Knowles, 1970). In the physical setting, we should consider comfort, temperature, and arrangement of chairs and furniture, among other factors. Based on current research findings, even colors and textures of materials in the room influence the educational process.

According to Darkenwald (1982), contextual factors profoundly affect the learning process. Physical factors, such as noise level and lighting, are important. Tension, fatigue, health, hearing, and eyesight are particularly relevant for learning among older adults.

The following example depicts the importance of the physical context:

A beef cattlemen's association decides to hold a series of dinner programs at a local restaurant. The members meet in an area partitioned off from the rest of the dining room. There is excellent attendance at the first meeting at which an Extension specialist is in charge. But attendance is poor at the second meeting, to which the County Extension agent has been asked to speak. The agent is inclined to take the incident personally, but he asks some of the members to inquire about the attendance. They discover that the majority of the absentees were either older members with hearing problems or members who, during the previous meeting, were sitting close to the partition and could not hear the speaker over the noise from the dining room.

It is important to understand that learners have different needs and orientations at various developmental stages of their life span. The effective Extension educator recognizes the impact of the physical context on the learner's behavior. The physical context for the Extension education process occurs in a wide variety of locales. Generally, the locale is in close

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proximity to the living, working situation of the learners. Activities may take place in the County Extension office; on farms; in homes, churches, or community buildings; at fairs, malls, or shopping centers. The learning-by-doing philosophy tends to assure that the process takes place in the same or similar physical setting in which the learning will be applied.

The physical context also influences the social and psychological climate, even the way the educator dresses. The educator should neither overdress nor underdress for meetings, but should dress as appropriately as possible, according to the expectations of the learners and the appropriateness for the learning activities to be carried out.

The Content. Traditionally, the content for the Extension education process has been drawn from the fields of agriculture, home economics, and related sciences. The source of content has been research-based, technical information made available through the land-grant institutions, the USDA, and others.

Simkins (1977) points out that the content for nonformal adult education is focused on tasks and developing skills, and is intended to result in specific changes in learners, communities, or systems. Thus, the content of Extension education is influenced by the intended use of identified outcomes or results. Learning is closely related to the environment of the learners. The Extension education process is designed with the learner as the focal point, and recognizes that most learners will be engaged only part time in the learning process. Since the content of Extension education is tailored for the needs of learners and varies according to the context or environment, educational programs may be altered or modified at any time.

For the most part, the parameters of the content of Extension education are legislatively mandated. However, recent interpretations of Extension's mission are broad and provide flexible parameters for gearing programs to a wide variety of needs and issues. The Extension organization's shift to issue-based programming is a proactive response to both learners' needs and renewal of the organization itself. Eight national initiatives have been identified to address current needs and issues (Johnsrud and Rauschkolb, 1988, p. 3):

- Alternative agricultural opportunities
- Building human capital
- Competitiveness and profitability of American agriculture
- Conservation and management of natural resources
- Family and economic well-being
- Improving nutrition, diet, and health
- Revitalizing rural America
- Water quality.

These initiatives are intended to focus and to increase the impact of Extension programs.

Generally, priority for the content of Extension education is given to those areas for which Extension has direct access to a research base through the land-grant institution and the USDA. Content is organized, interpreted, and presented in such a way that it is meaningful to the learner. The content of Extension education is practical, and has immediate application in solving problems in the living or work situation and in accomplishing predetermined goals.

Boone (1970) maintains that the term "Extension" infers extending educational information from the USDA and the land-grant institutions to the people, and, therefore, such information should be useful, practical, and research-based. Darkenwald and Merriam (1982) also emphasize that program content should be meaningful and related to the experiences and needs of the learners.

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Principles of the Extension Education Process

The following principles provide a perspective of the rationale of the Cooperative Extension System, and the process through which Extension programs are planned, designed and implemented, and evaluated and accounted for (Boone, 1985, pp. 42-47).

> 1. Extension educators must acquire and become committed to a unified framework of basic beliefs about Extension to guide their roles.

The Extension educator's major thrust is to alter or change, through educational programs, the behavioral patterns of learners so that they are better equipped to cope and deal with the rapid changes that occur in their environments. Extension has a major function of nurturing a climate that enables collaborative planning of educational programs to meet both immediate and long-range needs of targeted publics. Most people are interested in improving their situations, and, with the Extension educator's help, will try to reach specified goals. Lay leaders who have been involved in making decisions will respond favorably to programs that embody the decisions in which they have participated.

> 2. Extension educators must be committed to the premise that Extension education is concerned with making a start toward conditions that ideally might be.

The goal of the Extension education process is to nurture conditions that ideally might be brought about through education. The process is a collaborative function that is democratically determined and educationally sound, that responds to changing environments, and that promotes decentralized responsibility. The process starts with scanning the environment for major issues about which it is felt that something can be done within existing resources and expertise, and through networking with other community organizations/agencies. Next, the process concentrates on defining problem solutions for the identified issues.

> 3. To function as planners and implementors, Extension educators must view themselves as planners, and must continually engage in scanning the contexts in which they function.

Thus, to interpret the issues and situations with which they deal and to guide their decisions through the planning process, Extension educators need a thorough understanding of the Extension education process, along with an understanding of the social and behavioral sciences. Extension educators need to be sensitive to scanning learner contexts and receptive to the changing needs and issues of learners, learner groups, and systems. They need to know how to identify issues, how to establish networks with significant others through mapping, how to identify target publics and interface with the leaders of those publics, and how to work with those leaders, their followers, and significant others in various contexts.

> 4. Extension educators need to understand the sociocultural context within which they plan and implement Extension programs.

Extension educators need to understand relationships and communication channels that are important to their clientele. They must be knowledgeable about the nature of other organizations that are in the community, the roles and structure of those organizations, the policies under which they function, and their educational programs. A thorough scanning by the Extension educator of the sociocultural context of the publics is necessary for identifying issues, mapping publics, identifying target publics, networking with other organizations/agencies, and for initiating dialogue with the leaders of those publics through which to identify the educational needs and issues of potential learners within the target publics.

5. Extension educators need to be knowledgeable about the concept of collaboration between themselves and their clients and significant others in decisionmaking.

Collaborative decisionmaking is the joining of the educator's experience with the leaders' and learners' experience when participating in planning. Guiding this relationship in programming is difficult for the Extension educator, but essential to sound issue programming that people will respond to and support.

6. Extension educators need to translate the learners' expressed needs into a meaningful program design and to develop effective strategies for its implementation.

To accomplish this task, there must be clear, feasible objectives that are understood by Extension educators, targeted public leaders, and clientele. The objectives must be stated in terms of intended behavioral change among the learners. In developing objectives, the Extension educator needs to consider time available, client capabilities, costs, and so forth. In a planned program, there is progression of learning behaviors that range from awareness to valuing commitment. Extension educators must be sensitive to the "teachable moment" of their learners. Learners must be allowed time to learn and the opportunity to practice what they have learned. Extension educators will improve their performance when they internalize the principle of comparative advantage, i.e., how can Extension make a better contribution to effecting behavioral change than other educational organizations?

7. The Extension educator needs to evaluate and report how well the planned program effected the desired behavioral change among the program participants.

The Extension education process is not complete without plans for using tested and valid methods for collecting and analyzing evidence of measurable change among the learners. Program outcomes or results must be considered in relation to program inputs, and the validity and reliability of such evidence must be considered before the Extension educator can use outcomes or results to evaluate the planned program.

Having established the primary purpose of Module 2—to understand the uniqueness of the practice of Extension—and the primary objective of the Module—to build Extension educators' understanding of the Extension education function—we turn now to an overview of a conceptual model of the Extension education process (Boone, 1985). This model was designed to guide Extension educators, as programmers, in a practical application of the Extension education process in our efforts at planning, designing, implementing, evaluating, and accounting for Extension programs for our publics.

An Overview of the Conceptual Model for the Extension Education Process

The Extension Education Process Model consists of three major subprocesses: (1) planning, (2) design and implementation, and (3) evaluation and accountability. The model, depicted in Figure 1 (Boone, 1985, p. 61), demonstrates the relationships among these three processes. In this section, we will present an overview of the model and the basic assumptions for each of its major subprocesses. Detailed descriptions of each of these subprocesses are given in succeeding units.

Planning

The first major subprocess of the Extension education process model is *planning*. In this context, planning is defined as a deliberate, rational, continuing sequence of activities through which the Extension educator acquires an understanding of and commitment to Extension's functions, structure, and processes, and becomes knowledgeable about the process itself. The two dimensions of planning about which the Extension

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Planning		Design & Implementation		Evaluation & Accountability
The Organization & Its Renewal Process	**Linking the Organization to Its Publics**	**Designing the Planned Program**	**Implementing the Planned Program**	
Understanding of & commitment to the functions of the organization: Mission Philosophy Objectives. Understanding & commitment to the organization's structure: Roles Relationships. Knowledgeable about & skilled in organization's processes: Supervision Staff development Evaluation & accountability Understanding of & commitment to a tested conceptual framework for programming. Understanding & commitment to continuous organizational renewal.	Study, analysis, & mapping of the organization's publics. Identifying target publics. Identifying & interfacing with leaders of target publics. Collaborative identification, assessment, & analysis of needs specific to target publics.	Translating expressed needs into macro needs. Translating macro needs into macro objectives. Specifying general educational strategies. Specifying macro outcomes of the planned program.	Developing plans of action: Translating needs into teaching objectives. Specifying learning experiences for each teaching objective. Developing plans for evaluating learner outcomes & assessing learning experiences. Developing & implementing strategies & techniques for marketing the plans of action. Developing & following through on plans to recruit & train leader-learner resources. Monitoring & reinforcing the teacher-learner transaction.	Determining & measuring program outputs. Assessing program inputs. Using evaluation findings for program revisions, organizational renewal, & for accounting to publics, parent organization, funding sources, the profession, and, where appropriate, the governance body.

Figure 1. The Extension education process model

educator should be knowledgeable are: (1) the Extension organization and its renewal process and (2) linkage of the Extension organization to its publics.

The Extension Organization and Its Renewal Process. The Cooperative Extension System exists to facilitate positive behavioral change in its clientele and their sociocultural environment. Thus, Extension continually adjusts to serve the needs of its publics. The extent to which positive program outcomes are attained through planning efforts is contingent upon several factors of the organization. First, the Extension educator must be knowledgeable about and committed to the mission and philosophy of the organization, which provides a framework for the planning process, and organizational objectives, which regulate the planning behavior in achieving those objectives.

Planning by the Extension educator can be affected by the presence of an organizational commitment to a conceptual approach to developing issue-based programs with target publics. Next, the Extension educator needs sensitivity and commitment to objective, systematic analysis that will facilitate both scanning of learner contexts and responsiveness to the changing needs of publics and significant others.

Linkage With Publics. With a commitment to Cooperative Extension and a clearly defined role, the Extension educator needs to understand the task of linkage, i.e., studying, analyzing, and mapping the publics within which Extension functions; identifying target publics and their leaders; and interfacing with those leaders and their followers (learners). The goal of linkage is effective needs identification.

To be successful in planning, the Extension educator, in anticipation of the needs to be addressed, studies and maps publics culturally, socially, economically, geographically, and politically. Identification of target publics through mapping and identifying their formal and informal leaders leads to interfacing with those leaders and their followers (potential learners).

The Extension educator, the identified leaders, learners, and significant others then can collaboratively identify, assess, and analyze the continually changing issues and needs of major public concern. Ultimately, this collaboration enables targeted publics to become knowledgeable about, concerned with, and committed to satisfying learners' needs.

Consider the following example of mapping and linkage.

An Extension Home Economist has developed her linkage system for Financial Resource Management programs through co-workers, bankers, the Farmers Home Administration, the Production Credit Association, key farmers, and homemakers. Not only does she have a committee of key leaders, but she keeps regular contact with everyone associated with Financial Resources Management. Through this interchange, she learns from a local banker that a large proportion of minority landowners are having to sell their property.

Through interchange with others in the Financial Management public and her committee, she determines the social and economic forces that are causing the problem. The forces identified are lack of knowledge of financial planning and resources available, and a migration of young minority adults to more urban areas. With the help of her committee, the agent decides that educational programs can be responsive to the immediate needs for developing financial planning skills and securing resources. But even though efforts will be made to educate relevant publics on the migration of minority

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youth, responsiveness to this problem may not be as successful, and definitely not immediate.

This mapping process also could be strengthened by visually plotting on a county map where existing minority landowners are located, and where they have been lost. If a high concentration appears in one community, initial efforts could be focused there.

The planning subprocess is based upon the following assumptions (Boone, 1985):

1. Planning is a futuristic activity;

2. Planning in Extension is proactive;

3. Planning increases efficiency;

4. Planning is sequential; and

5. Planning is collaborative.

Design and Implementation

The second subprocess in the Extension education process is *design and implementation*. The major factors in design and implementation are (1) the planned program, (2) plans of action, and (3) action strategies. The planned program is a long-range plan for behavioral change, toward which the Extension educator focuses his or her attention.

The basic elements of a planned program are a statement of objectives keyed to identified and analyzed needs, specification of educational strategies, and specification of intended outcomes of the planned program. Short-term plans of action are specific teaching plans designed to fulfill learner needs and to meet the objectives of the program. Action strategies include marketing, procuring resources, monitoring educational activities, reinforcing learners, and using feedback.

The design and implementation subprocess is based on the following assumptions (Boone, 1985, p. 129):

1. A planned program is Extension's major means of responding to its publics' needs;

2. The planned program is an outline of major behavioral changes to be effected;

3. A planned program gives Extension a rationale for utilization of resources;

4. The planned program is a guide in deciding upon educational strategies;

5. Plans of action aid the systematic development of strategies to deal with needs and objectives;

6. The planned program is an excellent public relations tool;

7. Planned programs and plans of action are means of marketing programs to publics; and

8. Planned programs and plans of action are a base for identifying and developing resources.

Evaluation and Accountability

The final subprocess in the Extension education process is *evaluation and accountability*. In the context of the Extension education process model, evaluation is defined as (Boone, 1985, p. 179) "a coordinated process carried on by the total system and its individual subsystems. It consists of making judgments about planned programs based on established criteria and known, observable evidence."

In preparing for evaluation, the Extension educator first identifies values that support the programming choices and decisions. Then, it is necessary to identify and describe the intended outcomes or indicators of change that are sought through the planned program. Next, the Extension educator assesses and evaluates planning decisions, identification of target publics, leader identification and involvement, needs analysis, and learning activities.

Evaluation findings are used for program revision, organizational renewal, and accountability. These findings also are used to examine the viability and effectiveness of the Extension System. Finally, the organization analyzes and interprets programming choices and outcomes to its publics.

Accountability refers to (Boone, 1985, p. 196) "the process of reporting efficiency of planned program operation, primarily to the learners and leaders of the target public, the organization, funding sources, the profession, and, where appropriate, the governance body."

The evaluation and accountability subprocess is concerned with making informed judgments about the effectiveness of the planned program and plans of action, based on established evidence. Assumptions regarding the evaluation and accountability subprocess are (Boone, 1985, p. 171):

1. The major purpose of a planned program is to effect change in a specified public;

2. Outcomes of programs can be identified and evaluated;

3. Each decision in the Extension education process is rational and based on understood values;

4. Management and renewal of the Extension organization depend upon program outcomes and feedback through evaluation and accountability;

5. Participation of target publics in evaluating how well their educational experience met the planned program's objectives is both desirable and necessary.

6. Extension has both a commitment and a responsibility to account for programs to learners and leaders, target publics, the organization, funding sources, the profession, and where applicable, the governance body.

As indicated in introducing this overview of the Extension Education Model, detailed descriptions of each of the major subprocesses that constitute the model are presented in succeeding units of this Sourcebook. The two phases of the planning subprocess—the Extension organization and its renewal process and linkage of the Extension organization with its publics—are examined in Units I and II, respectively.

Unit I. Planning: The Organization and Its Renewal Process

The first major subprocess in the Extension Education Process Model is planning. Planning in Extension is a deliberate, rational, and continuing sequence of educational activities carried out by the Extension educator (Boone, 1985). The Extension educator operates from an organizational base, through which Extension establishes and maintains linkage with learners and their leaders in collaborative identification, assessment, and analysis of educational needs and issues. Figure 2 (Boone, 1985, p. 65) shows that the planning subprocess encompasses two major phases: the organization and its renewal process

Planning

The Organization & Its Renewal Process

Understanding of & commitment to the functions of the organization:
  Mission
  Philosophy
  Objectives.

Understanding & commitment to the organization's structure:
  Roles
  Relationships.

Knowledgeable about & skilled in organization's processes:
  Supervision
  Staff development
  Evaluation & accountability.

Understanding of & commitment to a tested conceptual framework for programming.

Understanding of & commitment to continuous organizational renewal.

Linking the Organization to Its Publics

Study, analysis & mapping of the organization's publics

Identifying target publics.

Identifying & interfacing with leaders of target publics.

Collaborative identification, assessment, & analysis of needs specific to a target public.

Figure 2. The planning subprocess

and the linkage of the organization to its publics. In Unit I, we will examine the first of these phases—the organization and its renewal process.

Organizational Renewal

Organizational renewal involves identifying and analyzing the needs and issues of Extension's publics and the functions, structure, and processes of the organization's mission, philosophy, and objectives. The Cooperative Extension System exists to facilitate desired behavioral changes in its publics, within available resources. Because the Cooperative Extension System is continually changing to stay abreast of its publics' changing needs and issues, Extension educators must continue to examine, understand, and accept any changes in Extension's functions, structure, and processes; i.e., organizational renewal. Figure 2 shows that among important factors that are basic to the Extension educator's success in program planning are understanding of and commitment to Extension's functions, structure, and processes; the use of a tested conceptual framework for programming; and continuous organizational renewal.

Extension's Mission, Philosophy, and Objectives

The Extension educator should be knowledgeable of and committed to Extension's mission, philosophy, and objectives. Since the mission of an organization sets the framework within which it will function, the Extension educator needs to be familiar with Extension's nature and distinguishing characteristics, at all levels; and its origin, legal basis, clientele, reasons for being, and types of programs developed. Extension's philosophy reflects the postulate that people adjust to change most rapidly when they initiate, identify, and solve problems that directly affect their welfare. Understanding and commitment to objectives are derived from deliberate and continuous member involvement in formulating Extension's objectives.

Extension's Structure and Processes

The degree to which Extension educators understand and are committed to the structure of Extension is a function of the manner in which the roles of Extension educators are defined and communicated, and the manner in which expected relationships of various Extension groups are established and understood. Extension educators should recognize that their expected roles are tied to Extension objectives. If these objectives are to be met, activities of the various organizational members must be interrelated, and members must work together to attain the stated objectives. Since Extension education occurs at all levels of the organization, it is imperative that all members have flexibility to make and implement decisions at their level of the organization.

The Extension educator must be knowledgeable about and skilled in the process of supervision, staff development, and evaluation and accountability. Thus, Extension must bring into itself the most competent personnel available, and provide for them a comprehensive and intensive personnel training program. Extension educators need the opportunity to function, but at the same time, they need to learn to share leadership and to develop the capacities of colleagues and clientele. Extension educators need to be actively involved in ongoing, in-service professional education and graduate studies in order to meet the continuously changing requirements of their roles.

Funding and support of programs are related to the demonstrated efficiency and effectiveness of the Extension organization. Extension educators need to understand the importance of evaluation and accountability to demonstrate to their publics and policymaking groups that desired program results have been attained. Evaluation efforts measure changes in the learners; provide evidence of application of those learned behaviors in real life; and provide some measure of whether or not desired changes have taken place in targeted audiences. Accountability requires that the Extension educator, in collaboration with learners and leaders of targeted publics, identify, assess, and analyze the real needs and issues of those publics; develop programs to address those needs; market program delivery systems for implementation; develop feasible program evaluation systems; and establish meaningful dissemination of program outcomes or results in accounting to appropriate publics and policymaking groups.

Conceptual Framework for Programming and Continuous Renewal

Extension educators must understand and be committed to a tested conceptual framework for program development. They need to be knowledgeable about and understand the total context for the organization's programs. Extension educators need a working framework that enables them to identify the educational needs of their publics, to facilitate their publics to act, and to design and implement programs that will bring about behavioral change among those publics.

Finally, Extension educators must be sensitive to the changing context in which Extension functions. Renewal of the organization occurs through intensive involvement of Extension's educators and leaders in developing programs; intensive dialogue concerning problems that affect the functions, structure, and processes of the organization; understanding prior bases, programs, and clientele; sensitivity to clientele needs and issues and the potential for meeting those needs and issues; and understanding change and how to cope with change.

The Extension organization's renewal is tied to linkage with its publics and the whole of planning through collaborative needs identification, assessment, and analysis. In issue-based programming, Extension educators need to be receptive to both quantitative and qualitative indicators of change in the learners. These aspects of the planning subprocess are focused on in Unit II.

Unit II. Planning: Linking the Institution With Its Publics

In Unit I, we discussed the first phase of the planning subprocess, which is focused on the organization and its renewal. In Unit II, the focus will be on the second phase, the linking of the institution with its publics (see Figure 2).

Linkage may be defined as the interrelationship between Extension and its target publics so that they become one system to achieve a common purpose. Linkage includes (1) study, analysis, and mapping of Extension's environment; (2) identifying target publics; (3) identifying and interfacing with leaders and learners in target publics; and (4) collaborative identification, assessment, and analysis of needs specific to a target public.

Study, Analysis, and Mapping

Determination of the educational needs of target publics is a challenging and necessary task of the Extension educator. It is necessary to focus Extension's programs on the identified, assessed, and analyzed needs and issues of various publics if the attention, interest, and commitment of such groups toward behavioral change are to be obtained.

Needs are influenced by a number of psychological, social, and cultural factors. Learned behavior, lifestyle, and needs are all influenced by expectations and normative standards imposed upon a person by various social groups with which the person identifies. The importance of the impact of societal and cultural forces on human behavior cannot be overemphasized. The Extension educator must understand how needs are linked to the individual's social and cultural heritage. The needs of individuals are meaningful to the extent that they perceive that fulfillment of those needs will help them to have a secure place in their social and cultural contexts. Intervention in the lives of clientele through educational programs, promoted by the Extension organization, requires that Extension educators understand the way of life of those individuals that they are attempting to change, and to have access into the groupings of their clientele.

The existence of definable social groupings is all-pervasive. A significant element of these groupings is the leadership that considerably influences the behavior and actions of the individual members or the total group. The content of programs designed to effect change in established behavioral patterns cannot be determined without differentiation or mapping of publics, their needs and issues, and the factors that facilitate or impede their participation in programs designed to help satisfy those needs or issues.

Extension educators must identify the leaders of target publics, and establish effective linkage with those leaders through collaborative planning and delivery of programs that not only will result in identification of needs or issues, but will result in satisfying those needs or issues. The Extension educator, the potential learners and leaders, as well as significant others, must be involved in the identification, assessment, and analysis of needs that will constitute the basis for an educational program.

The first major task for the Extension educator in the linkage process is to become acquainted with and knowledgeable about the social and cultural contexts and issues of the environment within which Extension operates. A comprehensive, cognitive map of the organization's environment is necessary for establishing and maintaining linkage between Extension and its publics.

Note the process in the following example of mapping.

A County Extension staff is preparing a new long-range plan, and begins with a staff conference to identify major issues in the county. To keep track of their thoughts, the staff members go beyond mental mapping and actually pinpoint on a printed map of the county all existing Extension programs, leadership, and anything else they know about the various communities. Census data are used to add community demographics, such as average age, income, and family size.

The staff begins to recognize that certain areas may have potential need for Extension education programs. One community is mainly young families with small children and may have need for several home economics programs. Another area has farms with large areas of unmanaged woodlands that have potential for forestry programs. Other areas have large populations of school-age children with potential for 4-H or 4-H EFNEP programs.

The staff discusses a plan for learning more about the target publics. Present members of the Advisory Leadership System also are familiar with some of the communities. Using these resources, the staff members begin talking with members and leaders of the communities. They discover who are the most influential leaders and more about the communities' needs, in general. The staff begins to build relationships with the identified leaders, and informs them of Extension educational opportunities. Staff members share the information they have gathered, and refine their analysis of the county. They discover that most of the targeted communities need several programs, and two communities either do not have the need the staff anticipated or are very resistant to change.

The staff discusses the potential for each identified leader and how these leaders could help in the Advisory Leadership System. They develop a plan for recruiting the leaders to help with situational analysis, needs assessments, and program planning.

A cognitive map includes knowledge of political and geographic boundaries, as well as knowledge and understanding of the residents of the area that Extension seeks to serve. Recognition of differences among people is an essential strategy for identifying needs and issues, and planning programs that are specific to the many and differing individuals, groups, or publics within an area. Mapping is an element of the linkage process through which the Extension educator can identify and delineate learner groups and systems to be served by the Extension System.

The Extension educator needs skills in selecting and applying the conceptual tools and processes for mapping Extension's publics. The first stage of mapping is to be aware of the characteristics of the various publics: their memberships, patterns of interaction, values, beliefs, sentiments, norms, resources, leadership, and sociocultural heritage. The second stage of mapping publics is recognition of the distinctive patterns of interaction between and among people in an area. The importance of knowing about and understanding the differences that exist between groups is emphasized by the fact that their needs and readiness to participate in externally developed programs will vary. Identification of these differences in special interests, ethnic backgrounds, socioeconomic statuses, religions, and subcultures is basic to the success of Extension educators in scanning environments for issues and in implementing programs that will yield behavioral change in targeted publics. Knowledge and understanding of social dynamics are essential to successful mapping of publics.

To achieve linkage between Extension and a public, the Extension educator must first map the public to discern the social context. Mapping leads to identification of target publics within larger publics; linkage with those target publics through identification of and interfacing with their leaders and potential learners; and acquisition of a source of reinforcement for new ideas and practices to be introduced through those leaders and potential learners.

Among the various conceptual tools for mapping publics are social system analysis, social stratification analysis, and cultural analysis. *Social system analysis* (Loomis, 1960) is a means of analyzing the social structure of a group and the interrelationships among individual group members. Loomis proposed nine elements and six processes for analyzing social systems within a larger environment. The elements are beliefs, sentiments, ends, facilities, roles, power, norms, social rank, and sanctions. The processes are communication, boundary maintenance, socialization, institutionalization, systemic linkage, and social control.

Williams (1960) and Bertrand (1967) identified *social stratification analysis* as a tool for understanding and mapping publics. Any number of social factors can be used as a means of understanding different groups of individuals, e.g., income, occupation, education, and reputation. Another approach to ranking systems when mapping is to differentiate among individuals and age groups through classifying them, within a system, by certain characteristics. For example, the Extension educator could use age, social class, sex, or other factors to identify individuals within a community.

Cultural analysis is a tool for studying a group's way of life and its sources of knowledge, beliefs, sentiments, and values. Knowledge of a group's culture is instrumental in understanding how change can be introduced and implemented in a system.

The Extension educator not only needs a knowledge of tools for mapping publics, but also skill in using those tools and knowing when to initiate the process. Thus, it is important for the Extension educator to use mapping tools to identify and analyze groupings of persons that will become the targets for implementing the tasks concerned with identifying and interfacing with leaders and potential learners for collaborative needs and issues identification, assessment, and analysis.

Consider the following example of linkage:

The new Extension livestock agent with poultry responsibilities talks with his or her County Extension Director, and visits with the local farm supply store owner to find out where some of the poultry growers in the county are, and if there are any hatcheries, feed mills, and processing plants in the county. These contacts begin the mapping process that is essential to linkage. The agent then visits with the poultry industry publics identified and, informally, asks who they buy from, sell to, communicate with, and respect in the industry. This analysis of issues strengthens the mapping process and identifies the leaders in the industry, the industry's social structure, and its communication patterns.

The livestock agent may identify the largest and most respected producers; the most-used processing companies, hatcheries, and feed mills; and invite their owners or representative to serve on a Poultry Committee. This committee continues to map the county, but also identifies the needs that can be met through Extension education programs.

The formation of the committee formalizes the linkage between Extension and the target publics. The Extension livestock agent meets with the committee on a regular basis, but also keeps contact with others in the target public of the poultry industry to keep his or her linkages as knowledgeable as possible. These actions also help build new leadership for the poultry committee.

Extension educators, in mapping publics, need the following abilities (Boone, 1985): (1) ability to delineate the total social context of Extension's publics; (2) skills in using conceptual tools to scan, study, analyze, and map the organization's environment, and to identify potential target publics; and (3) knowledge and skill in analyzing the structure and behavior of those publics.

Targeting Publics

After mapping publics, the Extension educator identifies and rank orders the target publics to be served. Extension's objectives and resources must be considered in sorting out those target publics toward which programs will be directed. The screening process should end in the identification of target publics, and placing them in order of priority. Extension's mission and philosophy may specify certain publics, or publics may be specified through legislative mandate. Extension can only serve those publics for which it has the learning resources. These activities are then compared to what is known about the actual or potential publics to establish the linkage between organizational objectives and capabilities and the presumed learning needs of the target publics. Following identification of target publics, the next step is to identify leaders of those publics so that the Extension educator can initiate contact with them.

Identifying Leaders of Target Publics

Acceptance by the target public requires the Extension educator to identify closely with the formal and informal leadership of that public. This move, which is necessary to determine the needs of the target public and to secure its commitment to participate in programs focused on its needs, is affected by the authority and power vested in the leaders of the target public. There are several ways to identify the leadership of a public, principal of which are the positional, reputational, decisionmaking, and social participation approaches.

The Extension educator can identify leaders through a *positional approach*, in which power is assumed to rest in the top leadership positions in formal organizations that are relevant to educational programming. [*Note*: A more detailed discussion of all leadership approaches is presented in **Module 3: Developing Leadership**.]

The *reputational approach* involves interviewing influentials in a target public. These influentials are presumed to have broad knowledge of target public decisionmaking processes, and to be in a position to identify those leaders who have the influence to affect a number of target public issues.

The *decisionmaking approach* to identifying leaders is based on the assumption that involvement in decisionmaking is the criterion for recognizing and identifying leaders. Leaders identified through the decisionmaking approach are active or instrumental in community issues. Analysis of several of the decisions in which these persons were involved may help establish the extent of their leadership role(s).

The *social participation approach* to identifying leaders is based on the assumption that influence on target public decisions is acquired through membership and holding office in voluntary organizations. In this approach, each individual's participation in voluntary organization activities is combined into a score to denote degree of social participation. Those persons with the highest scores are identified as leaders.

Interfacing With Leaders

Linkage with target publics is incomplete until the Extension educator establishes communication with identified leaders through formal and informal dialogue. Leagans, among other writers in the area of Extension education, emphasizes that the Extension education process is a communication process, and the role of the Extension educator is as a communicator. Leagans (1963, p. 5) defines communication as "a process by which two or more people exchange ideas, facts, feelings, or impressions in ways that each gains a common understanding of the meaning, intent, and use of messages." Thus, effective communication is the "essence" of effective Extension education. Leagans emphasizes that communication is an interactive process that involves a two-way flow of ideas. Interaction is necessary so that Extension educator and learner may come to a common ground of understanding with regard to the interpretation of information.

Communication occurs through the use of symbols, such as words (written or spoken), colors, shapes, and sounds, used singly or in combination. The use and interpretation of the symbols of communication are specific to values, attitudes, and traditions within a specific culture. The Extension educator assumes responsibility for determining that these symbols of interaction have a common meaning.

The effective Extension communicator has a clear message. He or she chooses the appropriate communication channel and delivers the appropriate message to the right person, at the right time, in the appropriate way. Communication usually is described as having a sender, a message, and a receiver. In terms of the Extension education process, these are the learner, the Extension educator, and the content, all of which are profoundly influenced by the *context* in which communication takes place.

It is essential that Extension educators develop and use effective oral and written communication skills, as well as the ability to communicate effectively in one-on-one situations, before small and large groups, and by means of radio and television media. The written word is equally important, because Extension communication with the public frequently occurs through letters, circular letters and newsletters, and newspapers and magazine articles. Interfacing with the leaders and potential learners of target publics has two goals: (1) building trust that is essential to program planning and (2) collaboratively identifying, assessing, and analyzing educational needs.

Needs Identification, Assessment, and Analysis

After successfully interfacing with the leaders of target publics, the next step in the planning subprocess is for the Extension educator to promote collaborative needs and issues identification, assessment, and analysis with those leaders and their followers (potential learners). This task is essential in effectively relating Extension's resources to its publics. In the planning subprocess, the general idea is that the Extension educator and identified leaders and potential learners will become increasingly involved in collaborative identification, assessment, and analysis of the educational needs of those learners. This collaborative effort is a major task in planning to meet educational needs.

Needs of persons or publics are cumulative effects of psychological, social, cultural, and physiological factors. *Need* can be defined as a deficiency, imbalance, lack of adjustment, or gap between the present situation and a set of societal norms believed to be more

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desirable (Boone, 1985). Need, then, may be conceptualized as the difference between "what is" and "what ought to be." The Extension educator, in collaboration with target public leaders and their followers, can use properly selected and relevant information to identify and analyze their needs and issues, to stimulate interest among the target public, and to arrive at alternative courses of action to fulfill these needs and issues. The Extension educator must analyze the current situation and what is expected by the target public. The nature and extent of the need or issue should point up the importance of the problem.

The needs of a target public are determined through a *situational analysis*, i.e., by finding the public's present situation, their possible situation, and the ideal situation. Program objectives should focus on changing the target public's behavior to the possible and the ideal. Analysis of data and collaborative decisionmaking about needs that involve target public leaders and the learners are instrumental in needs identification and selection. If the target public is to be motivated to change, then the emphasis must be placed on the ideal. Careful decisions must be made about the selection of needs to be included in the planned program. Focusing on both felt and unfelt needs is an important procedure for the Extension educator. [*Note*: Situational analysis is treated comprehensively in **Module 4: Situational Analysis**.]

In planning for positive change, the Extension educator also must understand the *context* of learners. Consider the following example, in which the Extension educator adeptly analyzes the situation.

An Extension forestry agent has discovered that a certain section of the county has farms with large amounts of unmanaged woodlands. Although the agent has identified the influential leaders in the community, as he talks with them, he finds that they are resistant to even considering woodlot management on a large scale. The agent continues to keep in contact, but makes no progress until December, when he is unable to find any of the farmers at home. He asks a local store owner about this and finds that they are all out hunting. The area has a hunting club with a long history of protecting the forests. The Extension agent approaches the hunters' leaders with this information, and discovers the high value they place on their time and resources for hunting. The agent invites these leaders to serve on a Forestry-Wildlife Committee, where he learns more about their specific situation, and they learn how to manage forests and to protect wildlife.

Diagnosing needs in program planning is complex and challenging. The Extension education process is based on an active partnership between the Extension educator and the leaders and learners in the target public in collaboratively identifying, assessing, and analyzing the learner's needs, and developing an educational program or learning activities to help the learners to meet those needs. The target public and their leaders make the final decision about their educational needs and what will fulfill those needs. The Extension educator is the manager, facilitator, resource person, and arranger in most learning situations.

Note the role of the Extension educator in developing an Extension education program in the following example.

An Extension Agricultural Agent with livestock responsibilities observes that feeder calf sales for his county show small weights and returns. The Extension agent assumes that producers would be interested in a program on nutrition. He publicizes a meeting for livestock producers through the media and flyers at feed and supply stores. He calls the program "Proper Nutrition for Feeder

Calves." On the night of the meeting, two feed store operators are present, but no producers.

The agent asks the store operators why producers would not want to get higher prices for more weight. The operators tell him that five years ago a program was held on nutrition for better livestock health. The farmers felt that this would be the same type of program and had no need for more disease controls. The agent asks the operators to help him form a committee to examine the problem. It takes several weeks to identify and recruit the most respected livestock producers to serve on the committee. The committee members reveal that producers do feel that they ought to be getting better prices, but they do not know how they can afford more feed. With the committee's help, a program of workshops and individual contacts is planned to help livestock producers learn both budgeting and nutrition skills.

To summarize, linkage of Extension with its target publics is achieved by the Extension educator through:

1. Studying, analyzing, and mapping publics;

2. Identifying target publics to be involved in planning;

3. Identifying and interfacing with leaders of those publics; and

4. Collaborating with leaders and potential learners in an egalitarian approach to identifying, assessing, and analyzing the educational needs of the learners.

Having established linkage with our target public and identified and analyzed their needs, we turn now to the next task of the Extension educator, i.e., designing and implementing a planned program to meet those needs. The two major phases of the design and implementation subprocess are (1) designing the planned program and (2) implementing the planned program. In Unit III, we will focus on the first of these phases—designing the planned program.

Unit III. Designing the Planned Program

Activities in design and implementation, the second subprocess of the Extension education process, serve as a transition from the abstract to the concrete. The focus of the design and implementation subprocess is the organization and activation of a purposive educational response to needs identified, assessed, and analyzed in the planning subprocess. As depicted in Figure 3 (Boone, 1985, p. 70), the design and implementation subprocess consists of two major phases: designing the planned program and implementing the planned program. In this unit, attention will be directed to the first phase, designing the planned program.

The Planned Program

The planned program, or master plan toward which Extension educators focus their efforts, may be defined as a written statement of identified and analyzed learning needs; articulated educational objectives and strategies designed to meet those needs; and evaluation and accountability strategies to be used in assessing and accounting for educational outcomes or behavioral change. As indicated in Figure 3, the planned program consists of (1) a statement of macro needs, (2) a statement of macro objectives that are keyed to the macro needs, (3) specification of general educational strategies for achieving the macro objectives, and (4) specification of expected macro outcomes of the planned program. The term, "macro," is used in the sense

Design and Implementation

Designing the Planned Program

Translating expressed needs into macro needs

Translating macro needs into macro objectives

Specifying general educational strategies & learning activities

Specifying macro outcomes of the planned program

Implementing the Planned Program

Developing plans of action:
  Translating needs into teaching objectives
  Specifying learning experiences for each teaching objective
  Developing plans for evaluating learner outcomes & assessing learning experences
Developing & implementing strategies & techniques for marketing the plans of action

Developing & following through on plans to recruit & train leader-learner resources

Monitoring & reinforcing the teacher-learner transaction

Figure 3. The design and implementation subprocess

that these needs, objectives, and outcomes may take relatively long periods of time to fulfill, and involve large parts of target publics, extensive resource commitments, and a broad scale of educational strategies.

The long-range planned program flows from organizational linkage with publics and operates within the larger context of organizational renewal. The planned program forms the context for elaborating more focused plans of action that encompass micro needs, micro objectives, and related activities to involve the learner. The Extension education process is a long-range process to effect change in individual behavior.

Macro Needs of the Target Public

The first step in designing the planned program is to translate analyzed needs into macro needs of the target publics in the content areas within which learner needs have been identified in Extension educator-learner collaboration. The macro needs form a hierarchy of needs. The hierarchy, which consists of ongoing human and program development, helps build the structure for ultimate program design, and orders the ideal needs implicit to Extension's philosophy and objectives, while articulating Extension's mission to differing social and cultural contexts. Such a hierarchy is depicted in Figure 4. The figure is focused on a macro need translated from a felt need. The hierarchy depicts the progression of macro needs to the broader micro needs for new homeowners to have a well-kept lawn. [*Note*: Micro needs will be addressed in Unit IV.]

Macro Program Objectives

For each macro need, the Extension educator formulates the macro objectives that specify the learner behavior sought in fulfilling that need. Macro objectives reflect the ideal change desired in the learner. The derivation and statement of these objectives require that the Extension educator deal with issues, such as the type and level of behavioral change that is possible, probable, practical, or desirable, given the stated objective.

The basic problem in developing objectives is to achieve precision in describing desired behavioral change. Objectives provide bases for selecting and organizing learning experiences, giving direction, defining goals for accomplishment, relating educational inputs and learning outputs, and making the specific process of learning mutually comprehensible for all.

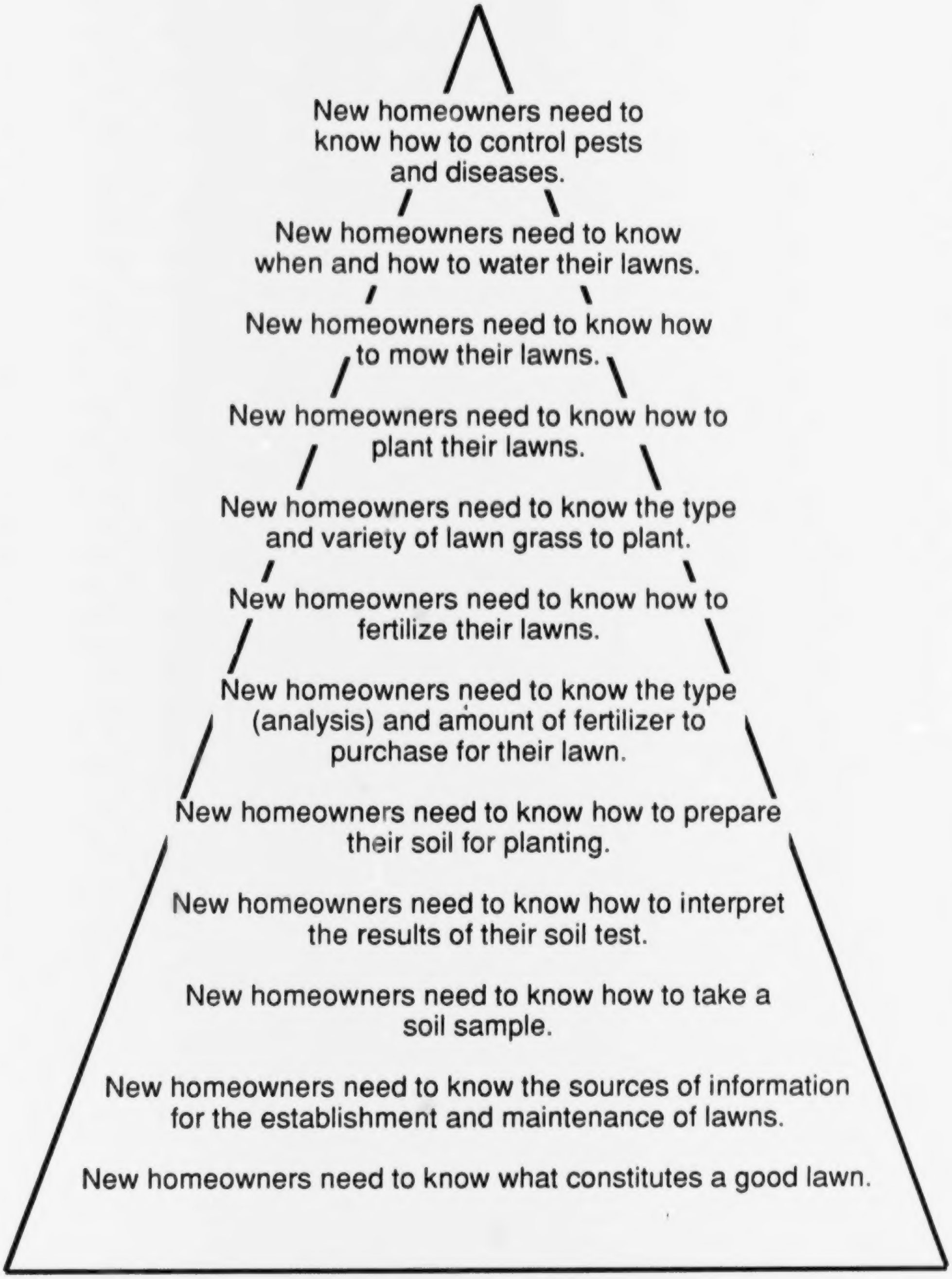
Translating macro needs into macro objectives forms the bridge from assessed macro needs to corresponding macro objectives, which will form the basic structure for program operation. This translation of needs to objectives is illustrated in Figure 5. The hierarchy of objectives in Figure 5 is based on the macro need identified in Figure 4.

Consider the following example of macro need identification and formulation of macro objectives.

After examining the needs identified by county Home Economics Program committees, the State Home Economics Program Committee recognizes that many of the problems facing families are economic ones. A macro objective developed for the four-year plan is based on the need to improve the economic stability of families in the state.

A Home Economics Program Committee in one county has identified the need for families to plan for their retirement and investments. The Extension Home Economics Agent includes an objective in the County Plan of Work that 200 families will develop estate plans. A Home Economics Program Committee in

Macro Need: New homeowners need to have well-kept lawns.



New homeowners need to know how to control pests and diseases.

New homeowners need to know when and how to water their lawns.

New homeowners need to know how to mow their lawns.

New homeowners need to know how to plant their lawns.

New homeowners need to know the type and variety of lawn grass to plant.

New homeowners need to know how to fertilize their lawns.

New homeowners need to know the type (analysis) and amount of fertilizer to purchase for their lawn.

New homeowners need to know how to prepare their soil for planting.

New homeowners need to know how to interpret the results of their soil test.

New homeowners need to know how to take a soil sample.

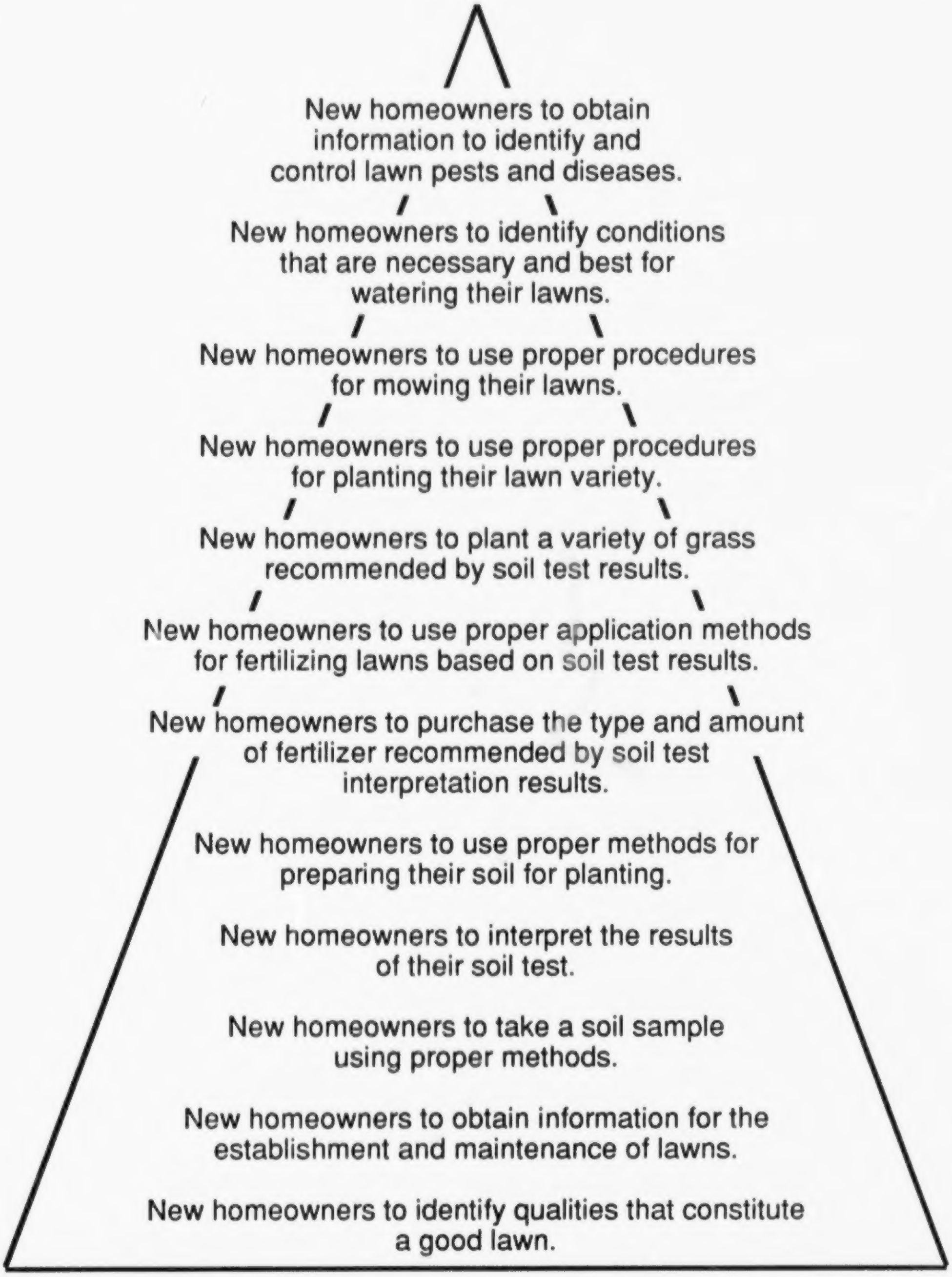
New homeowners need to know the sources of information for the establishment and maintenance of lawns.

New homeowners need to know what constitutes a good lawn.

Felt Need: New homeowners need to establish and maintain well-kept lawns.

Figure 4. A hierarchy of needs

Macro Objective: New homeowners to have well-kept lawns.



New homeowners to obtain information to identify and control lawn pests and diseases.

New homeowners to identify conditions that are necessary and best for watering their lawns.

New homeowners to use proper procedures for mowing their lawns.

New homeowners to use proper procedures for planting their lawn variety.

New homeowners to plant a variety of grass recommended by soil test results.

New homeowners to use proper application methods for fertilizing lawns based on soil test results.

New homeowners to purchase the type and amount of fertilizer recommended by soil test interpretation results.

New homeowners to use proper methods for preparing their soil for planting.

New homeowners to interpret the results of their soil test.

New homeowners to take a soil sample using proper methods.

New homeowners to obtain information for the establishment and maintenance of lawns.

New homeowners to identify qualities that constitute a good lawn.

Felt Need: New homeowners need to establish and maintain well-kept lawns.

Figure 5. A hierarchy of objectives

another county has identified poor buying habits by families in the upper low-income levels. The Home Economics Extension Agent develops an objective for 100 families in a targeted upper low-income community to develop a family budget and learn good consumer skills. Both counties are meeting the state objective to improve families' economic stability.

General Change Strategies

The Extension educator formulates general change strategies for assisting target publics in attaining behaviors specified in the macro objectives. Administering a program requires the Extension educator to define the general strategy by which the organization is to help the target public change (learn). A *strategy* is a designed plan of learning activities to achieve both macro and micro objectives. Learning experiences/activities must be ordered and sequenced so that they reinforce one another to create awareness, stimulate interest, and encourage behavioral change or adoption of new behavior by the learner, the group, or the system.

Consider the following example of a strategy employed to encourage adoption of change.

An Extension Agricultural Agent is designing a Farm Management program. To motivate farmers to become involved in the program, the agent has identified several farmers who have had success through adopting new methods, and he plans to make those successes visible to other farmers. He has involved both successful and "less" successful farmers on a specialized committee. The committee members have identified what they feel are realistic goals for improvement and acceptable methods for learning. These methods will include private counseling with an Extension agent or a volunteer leader, while group meetings are planned for those in less threatening situations. Extension agents and volunteers also plan to keep regular contact with participating farmers. In this way, they can make sure the farmers are using methods on a regular basis and can praise successes or adjust for problems. Volunteers also will be trained to analyze the previous practices of the farmers, and use those to help them understand new ones. As program participants adopt new practices in one area, volunteers will help them see similarities in managing other practices both on the farm and in their homes.

Delivery Strategies

Delivery strategies for educational programs take various forms, from one-on-one exchange to formal classes and numerous settings between the two. Choice of appropriate strategies is keyed to specified objectives, but takes into account social and cultural contexts, location, and other factors that may influence participation in and the effectiveness of whatever instruction is offered. Educational strategies selected should fit into learner lifestyles and social group norms and expectations. For example:

A Extension Home Economics Agent is designing a home repair program targeted for several low-income areas of the county. To accommodate a variety of perceptual modes, she develops a monthly newsletter, a printed resource list, audiotapes, videotapes, and workshops for sharing skills and using "hands-on," active experiences. She knows from the Specialized Committee that several of these neighborhoods have residents who enjoy using a nearby new community center. This gives them a feeling of prestige, as long as they know that many of their friends will be there to support those who feel less comfortable outside their community. Since there also are those who would feel uncomfortable in a group, the agent makes plans to form a volunteer team in each community.

Intended Outcomes

Each macro objective reflects an intended behavioral change or outcome that the Extension educator expects will fulfill needs. Extension educators, in cooperation with learners and their leaders, make projections as to the intended outcomes of proposed educational activities.

The Extension educator should estimate the time required to complete each component of the program strategy. Activities that require longer periods of time should be incorporated into the long-range planned program. Those that require shorter periods of time can be incorporated into appropriate plans of action.

The Extension educator also should provide for evaluative information-gathering, based on stated objectives and focused on decisionmaking processes regarding need fulfillment and organizational renewal. *Feedback from evaluating ongoing program outcomes is critical to program improvement, to organizational renewal, and to maintaining and strengthening linkages with target publics.* Criteria to be used in evaluation will be suggested by the form of the stated objectives. Techniques for incorporating evaluation results are needed, and should be planned for. Since evaluation takes time and resources, it also should be included in the program design.

Having completed the design of our long-range planned program, we turn now to the second phase of the design and implementation subprocess—implementing the program.

Unit IV. Implementing the Planned Program

The design and implementation subprocess has three major elements: (1) the actual design and development of the planned program (see Unit III), (2) sequenced plans of action for carrying out the planned program, and (3) formulation and execution of general educational strategies to use in implementing the planned program and the plans of action. The focus in Unit IV is on the latter two elements.

Plans of Action

Plans of action are specific teaching strategies and learning experiences to guide the Extension educator in fulfilling macro needs through attaining the macro objectives in the planned program. Plans of action delineate and order needs, objectives, teaching strategies, and learning experiences, as well as specific plans for evaluating change in learners' behavior and assessing learning. The tasks involved in designing a plan of action follow the same pattern as those in designing the planned program: needs, objectives, strategies, and evaluation.

The Extension educator must delineate, order, and sequence the micro needs of learners that are encompassed within each macro need (see Figure 4). Expressed needs are the basis for designing teaching strategies and learning experiences; meeting those needs implies intellectual growth of the learner. A hierarchy of needs orders that growth into manageable, practical, and appropriate sequences; and a concrete design of sequential teaching strategies and hierarchies. Providing an ordered sequence for micro needs sets a starting point for learning; gives a structure for short-term and long-term intellectual growth; and designates an ending point for plans of action and the planned program.

Because the Extension educator must formulate teaching-learning objectives for each need specified in the planned program, the next step in this process is to translate micro needs into micro objectives (see Figure 5). Micro objectives structure anticipated growth, help in the choice of teaching strategies and learner experiences, and provide the framework for program evaluation. Micro objectives specify the behavioral changes to be effected in the learners. Micro objectives are statements of behavioral change intended to fulfill individual learners' micro needs.

The Extension educator must select and organize, for each objective, learning experiences that will facilitate attainment of the behavior specified in the objective. Learners, for the most part, learn through experiences. It might be said that, unless a learner is motivated, no learning will take place. Consider the following examples of motivation.

An Extension Home Economics agent holds a series of workshops on nutrition and fitness. Because she hopes to repeat the series later, she would like to know what motivated this group to attend so that she can target her recruitment efforts. As part of her written evaluation by participants, she asks them to state why they came. Most of the responses are for basic health reasons, but some respond differently.

One came because she had always received compliments on her figure before gaining weight. Another came because he had lost weight, had felt better through another program, and wanted to continue that success. A third person was an executive who found younger, more athletic employees threatening to his position. Several came because friends were attending, and some felt more comfortable within Extension

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programs than more formal opportunities.

Although people learn with extrinsic motivation, intrinsic motivation is more effective in the continuation of learning and the retention of learning over a long period of time. Learning is more effective when the material being learned is meaningful to the learner. There is no substitute for practice in learning. The individual learner is an integrated whole that learns, feels, behaves, and thinks. Learning experiences should be structured that provide for and encourage that integrated whole. As learners recognize a need and it becomes meaningful to them, they seek to meet that need. Because educational programs must be tailored to specific publics, according to their culture and values, the Extension educator needs to develop a proper learning climate within which these learners are sufficiently comfortable to enjoy the full benefits of the designed learning experience.

Because the program developed by Extension is an educational program, the principles of the Extension education process, again, are a useful frame of reference for developing plans of action. Making sure that the plans of action are focused on the learner and are made collaboratively between the Extension educator and the learner are extremely important. Certainly, the plans of action should be evaluated in terms of their moving the learner toward positive change. The context in which the plan of action will be implemented is very important. Content also is important in developing plans of action. Since Extension has a content base at the land-grant institution and the USDA that traditionally is focused on agriculture, home economics, and related sciences, this information, along with major issues, should be carefully considered when plans of action are drawn up.

In designing the plan of action, it is important that the Extension educator draw upon a knowledge of nonformal education, adult education, and sound principles of adult teaching and learning. As the Extension educator works collaboratively with learners in making decisions regarding the selection, arrangement, and implementation of programs, it may be useful to think again in terms of the learner, the Extension educator, the context, and the content.

Learning Styles

When considering the learner, Lewis (1982) points out the importance of taking into account how the learner learns best, in terms of learning style. Learning style refers to the learner's general way of taking in information, thinking, decisionmaking, and retaining information. For example, research studies have revealed that some learners prefer to listen rather than to read. Some may prefer to work alone, while others may prefer to interact in groups. Educators are beginning to recognize learning style as one of the important concepts in the process of learning, and instruments have been devised for assessing learners' preferred learning styles.

One approach to assessing learning style is that an individual's style consists of a series of different modes. Four of the modes proposed in the literature are (1) perceptual, (2) cognitive, (3) emotional, and (4) social. The *perceptual mode* refers to the means through which information is extracted from the environment by the senses. The *cognitive mode* refers to the mental processing of that information. The *emotional mode* includes the personal feelings, attitudes, and personality traits that influence the gathering, building, and application of knowledge. The *social mode* reflects social factors that could either facilitate or inhibit learning.

Knowledge of the perceptual mode is important to Extension professionals and other adult educators who work with a wide variety of audience groups. Knowing the prevalent, perceptual learning styles of a target audience would be useful to the Extension educator in selecting methods and techniques, and in designing the overall learning experience.

The perceptual mode is composed of seven elements: (1) print, (2) aural, (3) interactive, (4) visual, (5) haptic, (6) kinesthetic, and (7) olfactory (James and Galbraith, 1985).

1. *Print*. A person who is print oriented often learns best through reading and writing. This is the learner who loves to read books, journals, or magazines, and finds that he or she easily retains the information that is read. A person who is identified as a "bookworm" may be a print-oriented learner.

2. *Aural*. A person who is aurally oriented generally learns best through listening. People who usually do not talk much, and feel that they learn best when the information is presented verbally, may be aural learners. Individuals who like lectures because they remember what is said, and who enjoy learning from audiotapes, probably are aural learners.

3. *Interactive*. Individuals who learn best through verbalization usually are interactive learners. These people like to talk about and discuss ideas with other people. Small group discussions or the give-and-take of debate activities are some means through which interactive individuals learn best.

4. *Visual*. A person who is visually oriented learns best through observation. People who like visual stimuli, such as pictures, slides, graphs, tables, and demonstrations, probably are visual learners.

5. *Haptic*. Individuals who learn best through the sense of touch are generally haptic learners. A haptic person is someone who has to feel objects, or to touch as many things as possible. Haptic persons assimilate information through a "hands-on" approach to learning. This is similar to "tactile"; however, tactile refers only to touch through the fingers, while haptic implies touch through the entire hand.

6. *Kinesthetic*. A person who is kinesthetically oriented learns best while moving. People who generally have to move around or have to move some part of the body while processing information probably are kinesthetic learners. Someone who is in constant motion while reading or listening may be a kinesthetic learner. Women who crochet or knit, women who work on leather projects during in-service workshops and who definitely comprehend the materials presented, are examples of kinesthetic learners.

7. *Olfactory*. Individuals who learn best through the senses of smell and taste are olfactory learners. People who vividly associate some information with a particular smell or taste probably fall within this learning style.

Learning Activities

The Extension educator can use this learning style concept simply to make sure that the material or content is presented in a variety of ways so that the learners can select those ways most appropriate for them, or the same material may be presented in more than one way. The goal of considering the learner and learning style is to design and use strategies that are tailored to the learner rather than attempting to fit the learner into a standard situation. It is further suggested that Extension educators, when serving as teachers, should select methods and techniques that also are comfortable for them to use. This does not mean the Extension educator should not try new techniques, but that, ideally, both teacher and learner should be comfortable in the learning context.

Research findings on learning style reveal the importance of using a variety of communication methods and materials for most Extension audiences. Certainly, the content will influence selection of the method and materials used for learning. If a volunteer 4-H Club leader is teaching a group of 4-Hers about lawnmower safety, it would seem logical and appropriate to use a lawnmower in the situation.

In designing a plan of action that includes the specification of learning activities, it is useful to consider the elements of Tyler's (1971) learning system, which was drawn from research on learning and consists of elements known to be important in facilitating learning. The learning system approach provides an orderly and rational perspective for assessing the adequacy of the learning activity. The system can provide a basis for planning and designing programs, as well as for refining, eliminating, continuing, or adding to learning activities in an ongoing program. The seven elements considered important in designing an adequate learning system are (1) motivation, (2) clarity of objectives, (3) adequacy of learning tasks, (4) sequential practice, (5) feedback and reinforcement, (6) transfer of skills, and (7) reinforcement and feedback in application.

1. *Motivation* refers to opportunities for stimulating learner effort. Activities that foster the interest and involvement of the learners or reward them for demonstrating desirable behavior contribute toward the elements of motivation.

2. *Clarity of objectives*, from the learners' perspective, enables them to understand learning goals clearly, as well as ways to accomplish those goals. Learning objectives must be meaningful to the learners and not superimposed on them.

3. *Adequacy of learning tasks* refers to the nature of activities in which learners participate to accomplish learning objectives. Emphasis should be placed on what the learners do, not what the teacher does. Adequate learning tasks (a) optimize opportunity for achieving desirable behavioral changes; (b) are within the range of the learners' ability; (c) build upon the learners' previous experiences; and (d) help learners connect what is learned in one setting with what they learned in other situations.

4. *Sequential practice* includes opportunities provided for practicing what is being learned. This practice should be orderly and cumulative, with each additional practice built on what went before. Additional practice may emphasize a broader scope and additional depth.

5. *Feedback and reinforcement* inform learners that demonstrated behavior was adequate, or they may provide indications of how the demonstrated behavior can be corrected.

6. *Transfer* occurs when the learners are able to practice what is learned in one situation in a different setting. This reflects an ability to generalize behavior.

7. *Reinforcement* and feedback in application refers to stabilizing the desired behavior in the learners' living/working environment.

Examples of how these elements of Tyler's learning system might be used in an Extension situation include some helpful insights. Motivation is an element that is useful to Extension educators in planning for an active group of 4-Hers. The use of learning games for a 4-H camp might be a way to increase motivation among members. Adequacy of learning tasks refers to the importance of the learners being able to accomplish the learning activity that is set forth. For example, if we were using printed materials with elderly adults, we would want to be sure that the print was large enough and clear enough that persons with failing eyesight could adequately participate in their use. The use of a problem-solving situation or a case study might be one example of a method that allows learners to transfer what is learned from a small group discussion to a problem-solving situation.

Forest (1986, p. 28) summarizes some important principles to consider in developing plans of action, by reminding us that

> Learning experiences and events are sequential; each builds upon the previous one and, in turn, leads to the next. The

> learning experiences are planned to accommodate the various stages of awareness, readiness, and knowledge levels of target clientele, learning styles of clientele, and preferred methods.

Drawing upon the experiences of decades of work by County Extension agents, social scientists, through scientific research investigations, have added insight to the process whereby individuals and groups accept innovations in technology. This research is known as ''diffusion research'' or ''diffusion-adoption research'' (Lionberger and Gwin, 1982).

Researchers generally agree that adoption decisions are the product of a sequence of events or influences operating through time. A widely accepted model is presented in five overlapping but distinct stages: (1) awareness, (2) interest, (3) evaluation, (4) trial, and (5) adoption. These stages are described by Lionberger and Gwin (1982).

1. *Awareness*. At the awareness stage, a person becomes aware of a new idea, product, or practice. Only general information is considered at this time—the individual is not concerned with special qualities or potential usefulness. No attempt is made to determine whether or not the innovation is appropriate for the individual's situation. Preferred sources of information at this stage include mass media, colleagues, and government agencies.

2. *Interest*. At the interest stage, a person develops an interest in the new idea or practice, and is no longer merely satisfied with the knowledge that it exists. The individual wants to know more, including what it is; what it will do; and how it will work in his other situation. The individual needs, and actively seeks, additional, detailed information. General information is no longer adequate. Questions asked at this stage are: Will it work? Will it work for me? How?''

3. *Evaluation*. At the evaluation stage, the individual accumulates detailed information; weighs the pros and cons of a new idea; and relates it mentally to his or her own situation. At this stage, the person must answer two major questions (a) ''Is the idea a good one?'' and (b)''Is it good for me?'' Evaluation is involved at all stages in the adoption process, but at this point, it is most evident and perhaps most needed for decisionmaking. Among other information sources at the evaluation stage are trusted colleagues, significant others, such as a parent; and direct observation of the innovation in use.

4. *Trial*. At the trial stage, a person tries out the innovation. The usual pattern, in the case of a product, is to try a little at first and more later, if the product works well. For example, after an initial successful trial, a homemaker may adopt the product for continued use. Or, at the trial stage, the decision may be not to adopt. It is at this point that the individual needs information on when, where, and how much to use with regard to a new idea, product, or practice. The principal information needs center on application to the individual's particular situation. Preferred innovator information sources include ''how-to-do-it'' publications, the instructions that come with the product, experienced colleagues, government agencies, salespersons, and dealers.

5. *Adoption*. At the adoption stage, the individual decides that the new product, idea, or practice is appropriate for continued use. The innovation likely will be used until it is replaced by a new (or different) product, idea, or practice. At the adoption stage, one relies heavily on direct experience and observation for information. An example of the adoption process follows.

A woman is talking with her neighbor and mentions that she has noticed her neighbor is visited by another woman carrying notebooks, boxes, or a pressure canner. The neighbor explains that the visitor is an EFNEP assistant and that the assistant teaches her about nutrition and other related information. The woman's curiosity is satisfied as to who the visitor is.

As the woman prepares meals, she reflects on what her neighbor has told her and wonders if the program could help her. She casually approaches the subject again with her neighbor, and begins to relate what her neighbor is learning to her own needs. The woman continues to reflect on what her neighbor has said, but she also begins to make closer observations. She notices that her neighbor's children are looking healthier, and that they are acquiring some new items around the house as a result of better budgeting. She is still reluctant to become involved, because she knows it will take time away from other things. And she is afraid she will not do as well as her neighbor.

The woman decides that the benefits could outweigh the efforts, and asks her neighbor to introduce her to the EFNEP assistant. After talking with the assistant about how it works and what it offers, the woman enrolls in the program. However, she protects herself by thinking that she can drop out later, if she wants to, and can give her neighbor some excuse. After several weeks in the program, she notices changes, such as her children enjoying nutritious snacks, and that meal-planning skills she has acquired are helping her budget. She continues to learn through the program, moving through the adoption process to many new skills. She also receives an EFNEP newsletter that refers to Extension Homemaker clubs. She enters a new awareness state that could lead to adoption of other skills.

There is no one method for learning activities. There is no one media for communicating the message. What is suitable for one group of learners may not be suitable for another, so the *learner* is important. What is appropriate for use by one Extension educator may be clumsy and awkward for another, so the *Extension educator* must be considered. What is appropriate to use in one learning environment, such as a small classroom, may not be appropriate for use in a large dairy barn, so the *context* must be considered. What is suitable for one subject-matter area may not be suitable for another, so *content* is important. By considering these four variables and various frameworks that draw from teaching-learning theory, such as those of Tyler, Knowles, and other educators, the best decisions are made regarding the arrangement of learning activities into a plan or plans of action.

In *Materials and Methods in Adult and Continuing Education*, Wigglesworth and Guelette (1982) identify six elements that should be examined as a basis for selecting teaching materials and methods in adult and continuing education. These elements are (1) problem-solving emphasis, (2) use of dynamic graphic displays, (3) individualization strategies, (4) interactive dialogue, (5) programming-cognitive development, and (6) communication-socialization.

1. *Problem-solving emphasis*. Developing problem-solving skills is a teaching method that is preferred over rote memory or even learning by repetition.

2. *Use of dynamic graphic displays*. Evidence exists that information is more understandable when presented in a graphic or pictorial fashion. Learners find it easier to relate abstraction to reality.

3. *Individualization strategies*. Teaching strategies must be selected to fit individual learning needs, learning styles, speed of learning, and individual need for feedback and reinforcement.

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4. *Interactive dialogue*. The interactive dialogue element emphasizes the importance of two-way communication between the learner and the teacher/educator. All the participants in the learning situation should be tied together into an interactive network (Wigglesworth and Gueulette, 1982) in which there is exchange of information and techniques between learners and teachers/educators.

5. *Programming-cognitive development*. Programming-cognitive development refers to an opportunity for the learners to develop their own learning activities and personalize their learning in unique or novel ways. Methods should be selected that help the learners make appropriate decisions about what is to be learned, as well as how it will be learned.

6. *Communication-socialization*. Teaching methods that involve a high degree of communication-socialization emphasize that human interaction and discovery are socialization. Wigglesworth and Gueulette (1982, p. 414) point out that

> . . . the utilization of new technologies requires greater involvement of teachers. They become managers, facilitators, tutors, diagnosticians, and have an opportunity to relate one-on-one with students to meet individual needs. At the same time, educational technology offers the potential of relieving teachers of the drudgery of testing, grading, providing repetitive reinforcement, and of trying to reach all students at one time.

Sometimes a plan of action will call for working with individuals, and other times for working with groups of people. These groups may be families, communities, or larger aggregates of people —even an entire county. Sometimes the plan of action will be directed toward instruction for existing groups. At other times it will be necessary for the Extension educator to form groups, such as 4-H clubs, farm organizations, homemaker groups, or community groups. [*Note*: **Module 5: Working With Groups and Organizations** is designed to give the Extension educator additional informationon developing plans of action that are directed toward existing groups, as well as information about forming new groups as the target of the Extension education program.]

Implementation Strategies

Implementation of a specific plan of action entails action strategies in which the Extension educator engages to assure that the plan is carried through to completion. These action strategies are (1) marketing the program, (2) developing and using available resources, (3) monitoring teaching-learning transactions, (4) reinforcing learners and teachers, and (5) using feedback to evaluate and, if needed, to revise teaching strategies or learning experiences to attain maximum behavioral changes in learners.

Marketing

Having plans of action on paper is extremely important, but putting the plan into action requires actually carrying out the plan. *Marketing* is one of the activities involved in implementing the program. As defined by Kotler and Fox (1985, p. 7),

> Marketing is the analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchanges of values with target markets to achieve institutional objectives. Marketing involves designing the institution's offerings to meet the target markets' needs and desires, and in using effective pricing, communication, and distribution to inform, motivate, and service the markets.

Although Kotler and Fox define marketing in terms of a managerial process, marketing to the Extension educator is, in many ways, similar to the Extension program development process. Application of the principles of the Extension education process to marketing would place less emphasis on achieving institutional objectives and more emphasis on achieving learner objectives. Many believe that certain concepts from marketing may be useful to educational institutions through providing incentives to help attract resources, and through helping to locate potential audiences for the product of the institutions, which is educational programs. The marketing process is designed to produce four principal benefits: (1) greater success in fulfilling the institution's mission, (2) improved satisfaction among the institution's publics, (3) improved attraction of marketing resources, and (4) improved efficiency in marketing activities (Kotler and Fox, 1985).

In the Extension education process, marketing is learner-focused, collaborative, interactive, and directed toward positive, measurable change. Although marketing involves publicity, promotion, and selling, it is much more. Marketing is, in fact, a process whereby, as Extension educators, we examine who we are; what our publics need and want; what our programs offer; how we solicit support and interest; and how we evaluate program outcomes or results. From the beginning to the end of the Extension education process, all Extension educators are involved in marketing, through interaction with publics, coworkers, administrators, and funding sources.

We collaborate to determine the four P's of marketing: program, price, promotion, and place (Boone, 1985). Price and place relate to the public's needs, characteristics, and values. No one will participate in an educational program if the place where the program is offered is inconvenient, unfriendly, or judged inappropriate in some other way. Learners will not participate if the price is too high. The price of Extension programs may be judged in terms of the time, effort, or energy that must be expended by individuals or groups to participate. Since there is no charge for most Extension programs, we need to think of personal cost in terms of the time, effort, and energy required of the learners to participate.

The remaining two P's of marketing—promotion and program—are concerned with ways that the availability and benefits of the program will be made known to potential learners. A promotional campaign involves its own objectives (such as to enroll 20 unemployed homemakers in a home-based business workshop) and its own specific audience. Extension educators must be able to promote the program through those communication channels that are used by the potential audience. If they are trying to reach a group of employed homemakers, for example, it would be useless to advertise an educational program on daytime radio. Just as useless would be an attempt to reach a new audience by sending out a message in a circular letter to those already on the mailing list.

Marketing principles would tell Extension educators to think about the program they have to offer, in terms of a specific audience for whom that program has been tailored, and to work collaboratively with the leaders or representatives of that audience. The program should be promoted through communication channels that are used by that group, and should be offered in such a way that the price of participation, in terms of time, effort, and energy, would be affordable to the learners.

Developing and Using Available Resources

Identification, development, and utilization of available resources are other important tasks that must be carried out when implementing programs and plans of action. Because Extension has resources available from the land-grant institutions and the USDA, these resources should be carefully examined for their utility in the program.

Among the resources available for educational programs are printed materials in the form of bulletins, fact sheets, and pamphlets. Also available are slides, filmstrips, videotapes, and films. Extension educators' technical knowledge is another valuable resource; Extension educators most often are trained in a technical subject-matter area. Also, since Extension programs focus on the learner at the local level, the community should be looked to for resources.

Emphasized in the learner-focused process is the notion that the learners themselves constitute a wealth of experience and information, and should be considered as critical resources in implementing plans of action, as in the following example.

An Extension Agricultural Agent with farm management responsibilities has found that many of the farmers who could benefit from evaluating their situation and developing a management plan do not want "outside help" looking at their books and telling them what to do. The agent expresses his concern to the Extension Farm Management Committee. Several members of the committee are successful and respected farmers, who have used Extension resources. They offer to learn some additional management planning skills and to introduce some of the reluctant farmers to the new skills. By the following year, those volunteers have reached several other farmers. The Extension agent identifies the most successful and skilled of those farmers and recruits them as trainers. The volunteer farmers donate time to help their friends, in exchange for their in-depth training in management.

Often, Extension resources, such as facilities or equipment, can be acquired from the local community. For example, if a home economics program on home canning is to be implemented, the Extension educator or teacher volunteer may be able to borrow pressure canners from the local high school to use in demonstrating the proper canning procedure. Likewise, locally donated fruits and vegetables may be used in the educational demonstration.

Extension educators need to be fully aware of sources of funding and support for educational programs. In addition, Extension educators need to know how to write proposals for grants from foundations and private sources to use in carrying out educational programs. Involvement of learners or their leaders in the resource development process strengthens the process; makes it more likely to be successful; and fosters a sense of ownership for programs carried out with the resources obtained. Emphasis on volunteer development is a major feature and beneficial outcome of the Extension education process as applied to program development.

Monitoring Teacher-Learner Transactions

Provision must be made for ongoing monitoring of planned learner experiences. The objectives of the monitoring task are to ensure that learning activities are implemented as intended, and for the Extension educator to be available to leaders, teachers, and other resource persons as assistance in programming matters. The feedback obtained from leaders and resource persons provides information on which to base informed and timely decisions about many needed learning activity adjustments or modifications. Extension educators function as managers and monitors in establishing and maintaining an effective two-way communication system with the leaders and resource persons who are involved in carrying out planned learning activities.

Reinforcement of Learners and Teachers

Continuous reinforcement must be provided for both learners and teachers. The importance of the reinforcement task to effective programming is highlighted in learning theory. Learning proceeds with greater ease for learners when they are aware of their strengths and weaknesses. Learners' responses to a behavioral change situation are affected by their perceptions of their degree of success in achieving the new behavior and its relevance to their lifestyles. When learners know their status and are made aware of their progress, they more successfully modify or change their behavior to achieve their objectives. Learners do internalize learning successes and transfer knowledge to other parts of their lives, as illustrated in the following example.

A farmer asks an Extension Agricultural Agent to tell him what kind of forage crop to plant. The agent tells him that they need to gather information to make a better decision. He asks the farmer to take a soil sample, and, while waiting for the results, to make a list of his needs, such as nutritional value and budget costs. The agent helps the farmer add to the list, and then provides him with information on nutrition and the strengths and weaknesses of different forages. He asks the farmer to review this information and to obtain additional information on the cost of his top choices or alternatives. Then they will use some computer programs to help develop a plan that meets all or most of the farmer's needs. When he arrives at the County Extension office, the agent finds that the farmer has already started the same process for his corn crop, because he realizes the need for an overall plan and is transferring the problem-solving skills he is learning.

Ongoing Assessment and Evaluation

The Extension educator must plan for assessing learners' progress in achieving the behavioral changes specified in each objective, and for ongoing evaluation of learning experiences provided for learning and adopting the intended behaviors. Objectives flow from needs; objectives are stated in behavioral terms to denote level of anticipated intellectual growth or behavioral change; and assessment/evaluation flows from the behavioral objectives and the learning experiences provided.

Evaluation of and accountability for the program must be anticipated and planned for throughout the Extension education process. Evaluation at the micro objectives level is concerned with determining whether or not a given objective has been reached with a particular learner following participation in a specific learning experience. The Extension education process is completed with feedback from that evaluation. Without evaluation feedback, the organization cannot emphasize mechanisms for organizational renewal.

The effectiveness of the design and implementation subprocess as well as the planning subprocess is determined through evaluating the program's outcomes, which must be accounted for to the learners and leaders and other concerned publics. The activities related to the evaluation task are discussed in Unit V, "Program Evaluation."

Unit V. Program Evaluation

Program evaluation and accountability is the third and final subprocess of the Extension education process. As shown in Figure 6 (Boone, 1985, p. 79), the first phase of the subprocess is evaluation, which will be the focus of Unit V. The tasks involved in the evaluation phase are determining and measuring program outputs and assessing program inputs.

Others emphasize evaluation as a process of determining attainment of program goals (Steele, 1970; Tyler, 1971; Popham, 1975). Knowles (1970) proposes that evaluation of a program must be in terms of identifying program objectives that have been met. Goal attainment is a common element of evaluation, as described by these authors.

Evaluation and Accountability

Evaluation	Accountability
Determining & measuring program outputs Assessing program inputs	Using evaluation findings for program revisions, organizationalrenewal, and for accounting to publics, parent organization, funding sources, the profession, and, where appropriate, the governance body.

Figure 6. The evaluation and accountability subprocess

Evaluation Defined

Scriven (1967) defines evaluation as the assessment of merit, while Stufflebeam (1971) defines evaluation as the act of examining and judging. Raudabaugh (1959) contends that evaluation is a process of determining the degree to which desired behavioral changes have taken place, or are taking place, as a result of educational effort. Numerous writers conceptualize evaluation as a process of determining the extent to which an educational objective has been accomplished or attained (Jans, 1960; Thiede, 1964; Shearon, 1970; Houle, 1973).

Assumptions About Evaluation

Boone's (1985, p. 170) basic assumptions about evaluaton of the planned adult education program were used as a guide in formulating the assumption concerning evaluation of the Extension education process, i.e.:

1. The primary purpose of the planned Extension program is to effect desirable behavioral change in a specified public.

2. Outcomes/outputs/results of planned Extension programs can be identified and evaluated.

3. The Extension organization proceeds through the Extension education process

as a series of conscious choices and decisions; it is further assumed that each decision is rational and based on values that are understood.

4. Management and renewal of the Extension organization depend upon continuous generation of feedback through evaluating program outcomes.

5. Participation of target publics in evaluating how well their educational experiences met the planned program's objectives is both desirable and necessary.

Purpose of Evaluation

Evaluation is intended to provide useful feedback for Extension programs. The Extension educator needs a clear purpose and definite use of the evaluation findings. To have useful feedback, the Extension educator must first identify those decisionmakers who will use the results of the evaluation. Each Extension program has a variety of stakeholders, who may include some or all of the following:

- The Extension educator,
- Extension administrators,
- Program planners,
- Planning committees,
- Program participants,
- Local government decisionmakers,
- Targeted publics, and
- Legislators.

These stakeholders have specific uses for evaluation results, which include their application to:

- Improve teaching,
- Improve program planning procedures,
- Account to supervisors and administrators,
- Decide about funding,
- Expand programs,
- Report to publics,
- Improve the educator's skills,
- Discontinue or alter programs, and
- Assess program delivery methods.

Evaluation is a continuous process for all Extension educators. Deciding whether a meeting for 4-H volunteers was effective; whether the adoption of management practices by a dairy farmer will prevent bankruptcy; whether the community-watch program will reduce crime in the neighborhood; or whether adoption of food preservation practices will enhance the buying power of young couples are all evaluation issues. Extension educators are faced with evaluation decisions every day. Understanding the process can help them to make evaluations more practical and useful.

Boone (1985) contends that evaluation is a coordinated process carried on by the total system and its individual subsystems. The major elements of the evaluation process are (1) judgments about a planned program, (2) established criteria or standards of acceptability, and (3) known, credible, and observable evidence. The intent of evaluation in the Extension education process is to answer the following questions (Boone, 1985, pp. 178-179):

1. Did a planned program and plans of action result in measurable change in individual learners?

2. Did the planned program and plans of action result in behavioral change among the targeted audience?

3. Were planned program and plans of action, inputs, and program activities associated with learners' behavioral changes?

4. Were organizational mission, philosophy, structure, functions, and processes effective and efficient in producing the outcomes intended in the planned program and plans of action?

Evaluation is concerned with designing and implementing programs and plans of action that are based on established criteria and known, observable evidence. Evaluation is a means through which the organization can justify and account for its decisions.

Boone (1985) identifies five tasks for the Extension educator in carrying out a program evaluation. First, the intended outcomes of the planned program must be described and unintended outcomes anticipated. Next, evidence must be collected, in line with established standards, to document outcomes. *Intended outcomes* are those behavioral changes stated as objectives of the planned program. *Unintended outcomes* are any other behavioral changes that occur subsequent to program activities. For example, an intended outcome of a food preservation program is the adoption of safe canning practices. An unintended outcome could be an increase in self-esteem of the homemaker who completed the program and implemented recommended practices. Unintended outcomes also can be negative; the Extension educator should watch carefully for such changes.

A third evaluation task is to examine the relationship between program outputs (outcomes) and inputs. The basic idea, here, is to demonstrate that program activities led to the desired change(s) in the learners rather than change being a function of nonprogram activities. It is crucial that the Extension educator demonstrate, insofar as possible, that learner behavioral changes were a result of program participation. For example, to evaluate the adoption of high-yield fertilizers and propose that the utilization of correct fertilizer was due to Extension programming, the educator must demonstrate, logically, that teaching utilization of high-yield fertilizers was the treatment/program offered only by the county/state Extension office. Therefore, the implementation of objectives must be reviewed with regard to intended outcome specifications as compared to input/output associations. Boone (1985, p. 15) defines this feedback loop as "the path through a feedback system from input to output and back to input." The Extension educator derives objectives in terms of observable, measurable, intended outputs and then selects or constructs teaching methods and learning activities that will lead to those outputs.

The fourth evaluation task is to check carefully the translation of objectives from client needs. The educator may need to call upon the learner, other program planners, and outside experts to ensure completeness of the relationship between needs and objectives. Thus, the Extension educator must examine the adequacy of needs identification, assessment, and analysis in conjunction with the degree of learner participation and observed outcomes/outputs. The individual learner must not be overlooked, even though the Extension educator has correctly mapped the target public and elicited needs from identified leaders. Thus, program outcomes and the success of planned program activities must be considered as originating from a thorough and appropriate needs analysis.

Finally, if the evaluation of the program is to be effective and useful in producing feedback for program development and program adjustments, the conclusions drawn from mapping publics and identifying targeted publics and their leaders must be monitored, reviewed, and validated.

Evaluation Models

A variety of evaluation models are available that Extension educators may use. Perhaps the most frequently used is an outgrowth of Tyler's (1971) objectives-based outputs model. The first step in Tyler's model is to specify the objectives for a program. These objectives should be stated in measurable terms, as specified by Mager (1975).

The Extension educator next identifies and collects evidence that is related to specified program outcomes. Bennett (1982) provides a cumulative system for identifying evidence of success at each stage of program delivery. As programs unfold, the Extension educator may identify and utilize evidence at one or more of the seven levels specified by Bennett (1982).

1. *Inputs*. What kinds of personnel and resources, including the amounts, did the Extension educator expend on the program? Included here are staff FTEs; material resources, including contributed community resources and volunteer expertise; and time.

2. *Activities*. How did the Extension educator interact with program participants? What kinds of information and what methods were used to deliver the program, e.g., demonstrations, newsletters, workshops?

3. *People involvement*. Who participated in the programs and how much? What were the major characteristics of the learners?

4. *Reactions*. How do the participants feel about the program?

5. *KASA* (knowledge, attitudes, skills, aspirations). *Knowledge*: have participants changed their awareness, understanding, and ability to solve problems? *Attitudes*: have participants experienced a change in their interests regarding the ideas or practices taught? *Skills*: have the participants changed in terms of their verbal or physical abilities? *Aspirations*: have the participants identified future courses of action or made decisions regarding future actions?

6. *Practice change*. Have the participants adopted changes in practice as a result of changes in their knowledge, attitudes, skills, or aspirations?

7. *End results*. Have the participants and others benefited from the changes in their knowledge, attitudes, skills, or aspirations?

Bennett's levels of evidence are hierarchically structured. Obviously, it is necessary to have inputs, in terms of professional time and resources, before carrying out program activities. Also, there must be program activities before people can be involved in those program activities. Following people involvement are the participants' reactions to program content and delivery. The final three levels of evidence are changes in the learners' behavior that are crucial for the success of Extension programming, i.e., changes in what the learner knows, feels, can or intends to do; adoption of taught practices; and the economic, social, or cultural consequences of behavioral changes.

Evaluation models also are designed to address different questions and to begin at different points in time. Sometimes the emphasis in various models is on internal workings of programs; in other situations, the emphasis is on the results of those workings (the products or outcomes). While the Tyler model emphasizes outcomes, Scriven's (1978) formative-summative model involves a set of extrinsic criteria and focuses on the quality of goals. Scriven contends that evaluation is more than determining the extent to which goals have been met. He maintains that evaluation also is an assessment of the extrinsic worth of the goals themselves.

For Scriven, formative evaluation involves assessing progress toward the identified goals while the program is in progress. In this model, the extent to which the program is meeting the designated criteria may be assessed at any point in its progression. If a particular method, e.g., an instructional strategy, is not working as intended, the intermediate feedback can be used by the Extension educator to make the necessary changes before more time and money are spent.

Major questions of a formative evaluation are: (1) Does the program seem to be working as originally planned? (2) Are all components of the program functioning effectively, or do some of them require revision? (3) Should the program be implemented elsewhere? (4) Are there serendipitous results that should be incorporated into the structure of the program? Scriven's summative evaluation model would be essentially the same as the Tyler model.

In their CIPP model, Stufflebeam and Guba (1971) emphasize the provision of information for decisionmakers other than the evaluator. In the CIPP model, data are collected and information is presented to someone else, who will determine its worth. The major elements in this model are C (context), I (input), P (process), and P (product). Stufflebeam and Guba define evaluation as a process of delineating, obtaining, and providing useful information for judging decision alternatives. Each part of the definition provides three basic steps in the model: *delineating* refers to information for making decisions; *obtaining* refers to data collection; and *providing* refers to rendering useful information to the decisionmaker.

Context evaluation is useful in the program development phase. Here the emphasis is on identifying needs and designing a rationale for the program. *Input evaluation* is used in identifying what will be required to meet the objectives defined in the context evaluation.

Process evaluation is basically a formative evaluation, i.e., determining if the program is being delivered as planned.

Product evaluation emphasizes gathering data for decisions to be made regarding the program.

Stake's (1967) countenance model is based on the consideration of three phases of an educational program—antecedent, transaction, and outcome. In the *antecedent phase*, the evaluator describes the intents and observations (existing conditions) of the program. Judgments also are made with regard to criteria to be used for comparisons. In the *transactional* phase, there are descriptions of the planned instructional intervention, behavior of clients, use of media, and so forth. The *outcome* phase consists of a description of program outcomes and measures of achievement.

Provus' (1971) discrepancy model is based on the discrepancy between the standards set for judgment and the actual performance of clients during and after completion of the program. Discrepancy analysis is done four times during the program. The first phase of the discrepancy analysis includes questions, e.g., "Is the program implemented as planned?" In the second phase, the major question is "Does the program seem to work as it was intended to work?" The third phase of the analysis addresses the question, "Did the program fulfill the objectives for which it was designed?" The fourth and final phase is a cost-benefits analysis of the program. As indicated previously, the usefulness of various models is contingent upon the goals of the Extension educator in evaluating Extension programs.

Since Tyler's and Bennett's outcome models are used throughout the Cooperative Extension System, the hierarchial structure of levels of evidence is elaborated here in the following example.

Bennett (1982) proposes that the evidence of program impact becomes stronger as the Extension educator moves up the hierarchy. The cost and difficulty of obtaining evidence increases as the hierarchy is ascended. An example of the evidence hierarchy for a home economics program on food preservation follows:

Level of Evidence: Changes/Activities

1. Inputs: Staff time; cost of materials

2. Activities: Workshops; newsletters developed and distributed

3. People involvement: Number of homemakers attending workshop

4. People reactions: Homemakers' feelings about workshop

5. KASA changes: Homemakers' knowledge of food preservation practices

6. Practice change: Annual testing of pressure canner

7. End results: Increased net income; improved quality of life

Evaluation Procedures

Stufflebeam (1971) proposes the following mechanics for program evaluation:

1. Develop a conducive environment for evaluation;

2. Plan and focus the evaluation;

3. Select or construct measuring devices;

4. Collect evidence;

5. Analyze, interpret, and report information; and

6. Assist decisionmakers in utilizing the evaluation information.

The Extension educator must be aware that evaluation always involves judgments as to the value of information that is presented to decisionmakers. Decisions with regard to what is worthy involve the perceptions and value orientation of decisionmakers, clients, and the Extension educator.

The evaluation process is an integral component of program planning, design, and implementation. Thus, the Extension educator needs to incorporate evaluation as a major thread throughout the programming effort.

The following checklist may aid the Extension educator in evaluating programs:

1. Select and describe the program to be evaluated. In many instances, the Extension educator may not have to decide which programs to evaluate, in that some programs have been previously evaluated.

2. Identify to whom you want to report the findings of the evaluation, and why you want to report to them.

3. Decide why you are evaluating the program. In other words, what are your reasons for the evaluation? What are the evaluation questions?

4. Identify your targeted audience.

5. List and examine the program objectives, which are written in measurable terms.

6. Decide which levels of evidence you will need to collect to demonstrate program success. The evidence level may have been set in your objectives.

7. Identify needed bench mark or baseline data.

8. Decide on evaluation methods and evidence collection techniques:

- Audience?
- Size of audience?
- Sample?
- Sampling procedure?
- Evidence collection procedures?
- Time of evidence collection?
- Additional documentation methods?
- Resources to conduct the evaluation?

9. Construct or obtain necessary instruments.

10. Implement the program.

11. Summarize and study program outcomes.

12. Prepare reports for the individuals or groups previously identified.

13. Use the resultant information in your program-planning process.

Sources of Evidence for Extension Evaluation

General approaches to collecting evidence for program evaluation include (Wright and McKenna, 1985):

1. Use records that you have kept as part of your ongoing job as an Extension educator. Extension requires that we keep a substantial number of records, such as the expenditure of staff time, clientele participation, 4-H records, Master Volunteer records, EFNEP records, among others. These records can be expanded to provide acceptable evidence for evaluating Extension programs. For example, keep attendance rosters to be used to document changes in clientele participation; ask adult 4-H leaders to rate the skills of 4-H members who have been involved in developing parliamentary procedures; or develop a short telephone survey guide to prompt collection of evidence from individuals who call for advice about particular procedures, such as stain removal procedures or food preservation techniques.

2. Collect evidence as part of the Extension program. The delivery of programs gives us an opportunity to build evidence collection procedures into ongoing programs. For example, as an Extension educator, you can build self-assessment procedures into your program, such as using an exercise in which learners are asked to demonstrate what they have learned; a description of what the learner intends to do after completing the program; producer records; or tests of learning built into the program.

3. Use non-Extension sources of evidence. Existing data sources can be systematically utilized as evidence of changes in learners' behavior. Examples include soil sample analyses from state soil analysis labs, sales records of feed and fertilizer distributors, records from sales of graded beef and dairy cattle, community-watch programs, and local government or community plans or records, among others.

4. Conduct surveys of program participants and nonparticipants. Mail questionnaires, telephone surveys, and personal interviews provide evidence of changes in program participants' knowledge, attitudes, skills, and aspirations; adoption of practices; and benefits gained from program participation. A group of nonparticipants provides an important comparison for evaluation program impact.

5. Compile case studies. When there is little information on program impact, it may be necessary to select a few cases in order to examine in-depth the relationship between changes in learners' behaviors and participation in Extension programs. Detailed and systematic recording of evidence before and after a producer participates in a comprehensive financial farm management program could provide valuable insight of impact that might be useful in expanding the program to a larger group of producers.

6. Record direct observations. The Extension educator has numerous opportunities to record program accomplishments as part of "doing business as usual." An observational diary kept on the front seat of the Extension educator's automobile can be utilized as a means for recording practice adoptions noted as the agent travels through the county or area. For example, the Extension educator can make quick notes of who is irrigating at recommended times, or who is applying pest control techniques at proper times.

Obviously, there are many techniques for collecting evidence of program results and accomplishments. A variety of techniques can be used so as not to lose the interest of the program participant while collecting the needed data to become part of the decisionmaking process with regard to program viability and accountability.

Reporting Evaluation Results

A prime audience for the report of the program evaluation is the decisionmaking group identified in the planning process. Program results may need to be communicated to those administrators who will make decisions relative to continued program funding. Obviously, a report of program success should be made to the Extension educator's targeted publics.

The results also can be used in the Extension educator's future programming decisions. The type and style of report will depend upon:

- The audience;
- Whether it is a final or interim report;
- Whether it is a descriptive or judgmental report;
- Whether or not recommendations are expected;
- Whether the delivery will be written or oral or through such media as slides or videotapes; and
- Whether or not the report is from the audience's viewpoint.

The report should include what was evaluated, why the evaluation was conducted, the evaluation method, the major findings, and the recommendations. The "payoff" of evaluations is in using the results. Program results need to be based on the findings of the evaluation. Judgment about the program being evaluated should influence decisions. Program decisions can be associated with the need for programs and setting objectives, the design or structuring of programs, the delivery or implementation of programs, or the outcomes of programs.

In summary, evaluation may be defined operationally as (Boone, 1985, pp. 180) "a coordinated process carried on by the total system and its individual subsystems. It consists of making judgments about planned programs based on established criteria and known, observable evidence."

Implementation of the evaluation process by the Extension educator can be summarized in five situational statements. First, the Extension educator needs to describe program outputs, intended and unintended, with appropriate documentary evidence. Next, the educator should examine the relationships between activities and inputs/outputs (outcomes), with the intent of inferring nominally causal associations. The Extension educator then reviews implementation of objectives in relation to the input/output associations. A careful scrutiny of the translation of analyzed needs into objectives follows. Finally, the Extension educator probes the adequacy of the needs identification, assessment, and analysis steps.

As stated earlier, the third and last subprocess in the Extension education process is evaluation and accountability. The latter phase, accountability, is reviewed in Unit VI.

Unit VI. Accountability

The second phase of the evaluation and accountability subprocess of the Extension Education Process Model is accountability. As shown in Figure 6, the tasks involved in this phase are using evaluation findings for program revisions, organizational renewal, and for accounting to publics, parent organization, funding sources, the profession, and, where appropriate, the governance body. The major assumption undergirding accountability in the Extension education process is (Boone, 1985, p. 170) "the Extension organization has both a commitment and an ethical responsibility to account for program choices and outputs to its target publics sources, and, where appropriate, to legislative and policymaking bodies."

In this context, Boone (1985, pp. 13) defines accountability as

> . . . the capability and the responsibility to account for the commitment of resources in terms of program results or outcomes. This accounting involves both the stewardship of resources and the evaluation of achievements in relation to specific outcomes.

Further, Extension's publics need to be continually apprised of the accomplishments of Extension programs. Also, means must be identified and implemented for reporting program results to the System's funding agencies. The Extension System must be prepared to account to its legislative bodies for its programs and to justify the confidence and support accorded it by these lawmaking and policy-formulating groups.

Accountability is the process whereby the Cooperative Extension System is held accountable for planned program outcomes/outputs, and for the effectiveness and efficiency of its efforts or inputs in producing the intended outputs. A major challenge for the Cooperative Extension System and its subsystems' organizations is accounting for the choices and decisions made in the Extension education process. To be accountable, the organization must have in place a sound evaluation and accountability effort, as an integral part of the total Extension education process.

Because accountability usually involves external imposition of demands for evaluative evidence, Extension educators are responsible for and are obliged to report the results of evaluating the planned program to the learners and leaders of the target public, the organization, funding sources, and legislative and policymaking groups. Reporting to and through leaders to the learners is an excellent means for strengthening linkages with publics for future needs identification and community cooperation.

Accountability applies to the total Extension education process. Thus, Extension educators need to analyze the mission, philosophy, functions, structure, and processes of the Extension organization, as associated with input to the planned program, achievement of planned program objectives, observed outcomes, and the need for organizational renewal, that is, continual adaptation to the changing clientele and service environment.

Drawing upon expertise in the Extension education process as a whole, knowledge of the unique relationships between the Extension organization and its target publics, and the outcomes from continuing evaluation throughout the program process, Extension educators may recommend means by which the organization might become more adaptive in meeting the needs of its publics. According to Boone (1985, p. 204),

> It is from the perspective of the successful program that the notion of renewal gains its force. The successful organization can continue to be successful in meeting the needs of its target publics only through change in its planned programs, functions, structure, and processes, as those organizational changes adapt to the changing needs of its publics. The . . . [Extension education] process, therefore, is a cyclically continuous, evolving, and adapting mechanism, reacting to its own success through evaluation and accountability.

The Extension Education Process in Retrospect

Extension education is a process of working with people in applying knowledge to solving problems, and improving the quality of life. The process is dynamic, interactive, and collaborative. Extension is unique in its application of educational principles, drawn from adult education, psychology, sociology, and related social sciences, to planned programs based on the programming subprocesses of planning, design and implementation, and evaluation and accountability.

The primary purposes of **Module 2: The Extension Education Process** were for Extension educators to (1) understand the uniqueness of Extension and appreciate the application of the Extension education process; (2) understand and apply the basic principles of the Extension education process; and (3) develop and refine the knowledge, skills, abilities, and attitudes that Extension educators need to implement the Extension education process.

The Extension educator is fundamental to implementing the Extension education process. As practitioners of nonformal education, Extension educators must understand the influence on the Extension education process of the learner, the Extension educator, the context in which the learning takes place, and the content of delivered programs. In addition, Extension educators must be committed to the mission, philosophy, and goals of the organization.

The practice of Extension education is built upon sound educational principles: (1) two-way communication between Extension educator and learners; (2) planned, purposeful behavioral change; (3) learner-focused with learning by doing; (4) problem-oriented decision-making, and (5) continuous feedback and evaluation. Although other agencies and organizations have planned educational programs, the practice of Extension education is unique in that program delivery, based on planned change, is objective, research-based, and intended to promote positive, purposeful behavioral change in learners.

Implementation of the Extension education process involves establishing reciprocity between the Extension educator and learners. Boone (1985) describes the situation of reciprocity as linkage, i.e., the blending of educators and learners into a common system. Linkage is a crucial responsibility of the Extension educator. With a goal of planned change, the educator must develop programs that evolve from study, analysis, and mapping of potential learner groups; targeting learner groups; identifying and interfacing with leaders of those groups; and collaborative identification, assessment, and analysis of needs specific to the targeted learners.

The planned program is the primary output of the Extension organization, and program development is the keystone of the Extension education process. The Extension educator can better understand the planned program concept through applying nonformal and adult education principles to the programming process. Thus, it is important for the Extension educator's activities (working with learners) to be guided by understanding the processes of planning, designing and implementing, and evaluating and accounting for that planned program as it occurs in Extension.

Programming models have elements in common of planning, design and implementation, and evaluation and accountability. The Extension educator, in planning, must (1) understand the organizational and sociocultural contexts of learners; (2) involve learners and their leaders and, through this linkage, identify learner needs; and (3) collaborate with both leaders and learners in motivating learners to change their behaviors or adopt previously developed practices in pursuit of improving the quality of their lives and their personal, group, and social systems.

The Extension educator must give careful attention to translating identified needs into the design of programs. The Extension education process, when implemented, must include a logical process of interrelating needs, objectives, plans of action, and action strategies for implementing planned programs. Key elements in the action strategies are marketing Extension programs; resource identification, development, and utilization; and, finally, continuous monitoring and management of the change process.

Implicit in the monitoring and management of the change process is the need to evaluate and account for activities and sources utilized in program delivery. It is essential that Extension educators identify and measure program outputs that demonstrate the effectiveness and success of Extension programs. The assessment of program inputs and their relationship to program outputs are valid techniques in the decisionmaking process of Extension educators in documenting and claiming social and economic results of Extension programs.

Likewise, the Extension education process is not complete until accomplishments of programs (changes in learners' activities and behaviors) are reported to specified audiences—publics that include administrators; decisionmakers; county, state, and national policymakers; and targeted audiences, including the learners themselves. Inculcation of the Extension education process by the educator becomes a way of accounting for and demonstrating the success of Extension programs. As expressed earlier in this Sourcebook, perhaps the best indicator of the success of **Module 2: The Extension Education Process** will be the Extension educator's modeling of the Extension education process, which has been "learned by doing."

Selected Annotated Bibliography

Adult Learners/Training

Barker, B. O. 1985. "Understanding Rural Adult Learners: Characteristics and Challenges in Lifelong Learning." *Lifelong Learning*, 9(2):4–7.

The author provides information on the nature and scope of adult education activities in rural areas. Topics addressed include characteristics common to rural America, differences between rural and urban adult learners, educational programs and delivery mechanisms for rural adults, and some suggestions to adult educators who are offering programs to these clientele.

Conti, G. J. 1985. "The Relationship Between Teaching Style and Adult Student Learning." *Adult Education Quarterly*, 35(4):220–228.

Does teaching style affect adult students' achievement? Conti reports a significant relationship between teaching style and academic achievement. The finding suggests that other situationally specific studies are needed to clarify further the general adult education literature base.

Fishes, J. C. 1986. "Participation in Educational Activities by Active Older Adults." *Adult Education Quarterly*, 36(4):202–210.

The author sought to identify predictors of participation in educational activities by active older adults; to describe the educational needs being addressed by their present participation; and to project their future learning needs. The findings revealed a statistically significant relationship between participation and level of educational attainment, propensity to engage in self-directed learning activities, and awareness of learning needs.

Fishes concludes that awareness of sites where educational activities are available is the best predictor of participation. Older adults seem to choose educational activities for benefits intrinsic to the activities themselves.

Holtzclaw, L. R. 1985. "Adult Learners' Preferred Learning Styles." *Lifelong Learning*, 8(6):23–28.

The preferred learning styles of the respondents in this Indiana study were (1) divergers, (2) assimilators, (3) convergers, and (4) accommodators. The author infers that persons who successfully complete a portfolio on prior experiential learning are among those farther along in their developmental growth. Most of the study respondents reported that, as a result of the development of the portfolio, they learned of their strengths and weaknesses, how to capitalize on the former, and how to improve upon the latter. The author presents the Experiential Learning Model and identifies preferred learning styles.

Knowles, M. 1973. *The Adult Learner: A Neglected Species.* Houston, Tex.: Gulf Publishing Company.

The author presents an andragogical theory of adult learning, which takes into account the unique characteristics of adult learners, in the context of self-concept, experiences, readiness to learn, and orientation to learning. An andragogical model of human resources development is elaborated, which the author emphasizes to be a process model in contrast to the content model employed by most traditional educators. Steps involved in the andragogical model are delineated.

Knowles, M. S., and Associates. 1984. *Andragogy in Action: Applying Modern Principles of Adult Learning*. San Francisco: Jossey-Bass, Publishers.

With examples ranging from business and government to universities and volunteer organizations, Knowles and his associates illustrate how adult learning activities are designed and implemented, by utilizing the andragogical model in 36 different cases.

Meredith, G. M. 1981. "Focus-Scan Learning Strategy Correlates of Students' Appraisal of Instruction." *Perceptual and Motor Skills*, 53(2):620.

Meredith's study is based on the findings of an earlier study in which a focus-scan learning strategy was identified among college students. The findings of that study show that, in a learning situation, the focuser attends to details and facts, while the scanner attends to and pieces together the larger picture of the presentation. Underlying the bipolar dimension is the inference that students' cognitive styles or strategies are strongly linked to measures of learning and appraisal of the course and the instructor. Meredith examines the relationship between two focus-scan items and five student-based ratings of instructional effectiveness.

Ofiesh, G. 1981. "Into the Third Wave." *VoEd*, 59(3):20–21.

As the cost of high technology decreases, and its reliability increases, its effect on education will be revolutionary. The major challenge will be for vocational educators to provide displaced workers with salable skills for the rapidly evolving high technology industries. The third wave of the instructional revolution had its beginning with the microprocessor, the computer-assisted interactive videodisc, voice recognition and voice synthesis systems, robot teachers, satellite communications, among others. Currently, the advantages of competency-based, individualized, and multimediated (CBIM) instruction are being explored.

Schmeek, R. R., and M. Spofford. 1982. "Attention to Semantic versus Phonetic Verbal Attributes As a Function of Individual Differences in Arousal and Learning Strategy." ***Contemporary Educational Psychology*****, 7(4):312–319.**

It has been argued that deep processing of semantic information helps students to learn faster and perform better on classroom tests. In the present study, the authors treat deep processing as a learning style and use the Synthesis-Analysis scale of the Inventory of Learning Processes to assess it. They hypothesized that arousal would be negatively related to the learning style of deep processing. Also hypothesized was that the interaction obtained in earlier studies, i.e., greater susceptibility to semantic interference, with low arousal, and phonetic interference, with high arousal, will occur only when Synthesis-Analysis scores are low. The study findings support both hypotheses.

Tracy, S. J., and E. M. Schuttenberg. 1986. "Exploring Adult Learners' Rationales for Course Interaction Preferences." ***Adult Education Quarterly*****, 36(3):142–156.**

The authors conducted a content analysis of 1,462 written responses provided by adult learners to explain their rationales for preferring differing learning interactions. Eight major response categories emerged from the analysis, including instructor-centered and collaborative rationales.

Wlodkowski, R. J. 1985. ***Enhancing Adult Motivation to Learn*****. San Francisco: Jossey-Bass, Publishers.**

The author discusses how motivation affects instruction and learning of adults, and describes how motivation can be stimulated. According to Wlodkowski, six major factors influence motivation: attitude, needs, stimulation, emotion, competence, and reinforcement. He analyzes these factors and explains why each can help improve instructional effectiveness and increase adult learning. Based on these factors, he details 68 motivational strategies designed to increase learning achievement in a wide variety of settings, and illustrates how these strategies can be incorporated into instructional plans.

Case Study/Curriculum Theory

Hoghielm, R. 1986. "Ideals and Reality in Competence-Giving Adult Education: An Examination of Swedish Municipal Adult Education." ***Adult Education Quarterly*****, 36(4):187–201.**

The official position of the Swedish government is that municipal adult education should be learner-centered rather than teacher-centered, and problem-oriented rather than subject-oriented. The author reports research carried out to determine the extent to which the official position is reflected in actual classroom practice. Detailed analysis of classroom interactions (tape-recorded lessons and classroom observations), coupled with survey responses from interviews with participants, teachers, and principals, revealed a substantial discrepancy between governmental ideas and the reality of classroom practice. A theoretical framework is presented to interpret the discrepancy and to understand more fully the factors that shape the instructional process.

Machida, K., and J. Carlson. 1984. "Effects of a Verbal Mediation Strategy on Cognitive Processes in Mathematics Learning." ***Journal of Educational Psychology*****, 76(6):1382–1385.**

The findings of this study support the hypothesis that verbal rhymes facilitate learning and retention of mathematics computations and problem-solving skills. Beyond affecting both long-term and short-term memory and helping provide organization, the use of verbal mnemonics helps alleviate specific problems that students seem to have in mathematics learning. What remains unclear is the extent to which verbal strings, such as rhymes, help provide strategic knowledge and thoroughly generalizable organization for the problem-solving process.

Curriculum Theory/Design

Boone, Edgar J. 1985. *Developing Programs in Adult Education*. Englewood Cliffs, N. J.: Prentice-Hall, Inc.

With his conceptual programming model, the author provides a comprehensive aproach to developing programs in the diverse field of adult education. Successful programming is presented as dependent on recognition of the multiple sources of theory, principles, and practices. To help adult education practitioners and learners do this, Boone examines different adult education programming models; presents a theoretical framework for the programming process; and details a comprehensive approch to the planning, designing, implementing, evaluating, and accounting for adult education programs.

Caffarella, R. S., and E. P. Caffarella. 1986. "Self-Directedness and Learning Contracts in Adult Education." *Adult Education Quarterly*, 36(4):226–234.

The authors report a study carried out on 163 students from 6 universities who were enrolled in graduate courses, to investigate whether or not using learning contracts in higher education enhances adults' readiness and competencies for self-directed learning. The findings revealed that the use of learning contracts has little impact on developing readiness for self-directedness, but does have some impact on developing competencies for self-directed learning.

Design/Case Study

Clark, R. E. 1983. "Reconsidering Research on Learning From Media." *Review of Educational Research*, 53(4):445–460.

In this article, recent meta-analysis and other studies of media's influence on learning are reviewed. Consistent evidence is found for the generalization that there are no learning benefits to be gained from using any specific medium to deliver instruction. Problems with current media attribute and symbol system theories are described and suggestions are made for promising research directions.

Grogan, J. P. 1984. "Teaching About Computers in Home Economics—Without a Computer." *Journal of Home Economics*, 76(3):46–48.

The author presents a conceptual outline for incorporating the subject of computers into the home economics program. Certain uses and characteristics of computers in consumer education, family living, privacy, and decisionmaking skills are discussed. Several conclusions are drawn about computer literacy in home economics.

Houle, C. O. 1972. *The Design of Education*. San Francisco: Jossey-Bass, Publishers.

The author presents a system of educational design, which he proposes to have relevance to education at any age in life, but one that has evolved from an analysis of the organized and purposeful learning activities of adults. Houle elaborates on a two-part system: (1) examination of the situation in which the learning activity occurs and (2) application to that situation of a basic framework to produce a design or program. The Adult Educational Framework includes seven decision points and represents a cyclical process.

Jonassen, D. H. 1981. "Developing a Learning Strategy

Using Pattern Notes: A New Technology." *Programmed Learning and Education Technology*, 21(3):163–175.

Learning strategies represent one of the newest forms of the technology of training. An algorithonic procedure for semantically analyzing pattern notes (a powerful and underutilized technique) is described. This instructional procedure is designed to help learners learn how to interpret and integrate information in order to reorganize and convey information. Originally conceived as a notetaking aid to replace or supplement traditional linear notes, pattern notes are perhaps most effectively used as recall and review aids. Creating pattern notes from linear notes very likely increases the number of access points in memorizing specific ideas; assists in organizing/arranging ideas for a paper, speech, or presentation; and is an efficient and easily learned means of mapping the semantic relationships between ideas in a learner's memory.

Evaluation/Training

Bennett, C. 1975. "Up the Hierarchy." *Journal of Extension*, 13(2):7–12.

According to Bennett, Extension program evaluation is not an end in itself. It is a staircase to measuring Extension impact. It is a process that aids decision-making about program continuation, priorities, modifications, and so on. In this article, the hierarchy for program evaluation is represented as a staircase to measuring Extension impact. The seven steps are identified as input, activities, people involvement, reactions, KASA change, practice change, and end results.

Conti, G. J. 1985. "Assessing Teaching Style in Adult Education: How and Why." *Lifelong Learning*, 8(8):7–11.

In the author's opinion, the collaborative mode is the most effective and appropriate style for teaching adults. He describes what a collaborative mode of teaching is, with support from the literature. Conti also discusses how adult educators can assess their teaching style by using the principles of Adult Learning Skill (PALS).

Lindsay, M. 1984. "Teacher Effectiveness in Adult Education." *Journal of Teacher Education*, 35(3):2–7.

The author assesses the status of teacher effectiveness in adult education and thereby aids teacher educators in preparing effective instructors of adult learners. Lindsay concludes that differences in teaching behaviors are related to three factors: the designated status of the adult, the extent to which adults are perceived to differ from preadults on learning-related characteristics, and the extent to which teachers subscribe to the belief that groups of students with differing characteristics should be taught differently.

Moskowitz, J. M., J. H. Malvin, G. A. Schaeffer, and E. Schaps. 1983. "Evaluation of a Cooperative Learning Strategy."*American Education Research Journal*, 20(4):687–696.

Cooperative learning techniques have been promoted for the development of social competencies and constructive peer relationships. The authors evaluated one such technique for its effects on students' attitudes and behaviors with regard to themselves, peers, and school. They found few affective gains, although participants in Jigsaw rated their classes as less competitive and more cooperative. Analyses of exemplary Jigsaw classes revealed similar results, along with improved attendance.

Schacht, R. H. 1971. "When Programs Fail, Find Out Why." *Adult Leadership*, 20(3):91–92.

In an effort to determine the causes for poor enrollment in a seminar and consequent cancellation, questionnaires were sent to everyone who had attended two or more programs in the past. Tabulated responses indicated the campus had lost some of its attractiveness as a place to spend one's vacation; and many people find the opportunities they want for continuing education closer to their homes.

Extension/Case Study

Burcalow, H. B., H. G. Copeland, and S. G. Fisher. 1981. "Needs and Priorities: The Specialist's Role." ***Journal of Extension*****, 19(5):15–20.**

The authors point out that, similar to other Extension personnel, specialists hear competing messages about program needs and priorities from local, county, state, and national sources. These messages mean specialists must decide how, where, and with whom to share their expertise. They observe that specialists are committed to providing educational programs that attend to both educational needs and interests of the clientele they serve.

Grabowski, S. M. (ed.). 1983. ***Strengthening Connections Between Education and Performance*****. New Directions for Continuing Education, -18. San Francisco: Jossey-Bass, Publishers.**

Trainers and educators have to be concerned with how learners can transfer their newly acquired competencies into role performance. Grabowski reports on ways in which institutions and organizations have attempted to ensure improved performance by learners after an educational experience. Grabowski suggests practical techniques that have resulted in improved performance after training. The volume includes a case study method used to develop and maintain good working habits and a perspective for developing more adequate programs of study for adult educators.

Horace, B. R., and E. L. Loughran (eds.). 1984. ***Beyond School: Education for Economic, Social, and Personal Development*****. Amherst: School of Education, University of Massachusetts.**

The educational functioning in 10 different settings, agencies, and approaches (including nonformal education) are described. The framework for the essays was constructed around four objectives: approaches in education, identification of issues and concerns of each approach, social change and learning theories underlying each setting, and a description of how education was delivered or implemented. The combination of the description of the different educational functions and the analysis that follows each description gives perspectives on both the practice and theory of education as it extends beyond the classroom.

Horner, J. T. 1984. "Developing Effective Agricultural Leaders." ***Journal of Extension*****, 22(6):15–18.**

Horner describes an innovative approach by Extension educators in one state to the gap in public policy education for adult leaders in agriculture. Emphasis is on critical concepts,with implications for Extension educators who wish to initiate similar programs. Agriculture and the nation are the ultimate benefactors of speeding up the process and making agricultural leaders more effective policymakers.

Jones-Webb, J., and S. Y. Nickols. 1984. "Programming for Modern Farm Women." ***Journal of Extension*****, 22(3):16–22.**

The authors examine the situation of contemporary farm women and recommend more effective programming that addresses the needs of young women living on farms. Needs are identified that represent farm-related skills and the areas of family life and home production. Educators are challenged to develop program methods to meet the needs of farm women, while limiting the amount of time required for attending classes and workshops. A team effort by home economists and Extension agricultural agents could influence the survival of the family farm and the family.

Jose, H. D. 1984. "Microcomputers: Early Adopters and Extension." ***Journal of Extension*****, 22(4):4–9.**

Although farmers have shown interest in microcomputers, the author feels that the educational process of helping them understand how they can use microcomputers to develop a management information system has just begun. Jose warns that Extension specialists and farm management professionals must be ready to answer questions about microcomputers, their applications to farms, and the availability of commercial software.

Prawl, W., R. Medlin, and J. Gross. 1984. ***Adult and Continuing Education Through the Cooperative Extension Service*****. Columbia: Extension Division, University of Missouri.**

The authors provide an up-to-date overview of Extension work in the United States today; examine the evolution of the Service: the programs it is offering; and issues and considerations in the 1980s. The authors build on and update the information presented in two widely accepted texts — *Cooperative Extension Work*, by Kelsey and Hearne, in 1949; and *The Cooperative Extension Service*, by Sanders in 1966.

Ratchford, C. B. 1984. "Extension: Unchanging but Changing." ***Journal of Extension*****, 22(5):8–15.**

The author traces some of the important changes in Extension over the past 35 years. He examines and compares four studies (long-range evaluations) with regard to (1) the motivations for the studies, (2) the approaches used, (3) key issues addressed, and (4) the impact of the studies. Significant recommendations from the study have been incorporated into programs and policies. It is unknown, however, whether the reports led to the changes, or simply were a recognition of the existence of exogenous factors and trends that had to be accommodated.

Smith, M. F., and J. T. Woeste. 1983. In-Service Education: Does It Make a Difference?" ***Journal of Extension*****, 21(1):22–27.**

The authors present criteria to evaluate in-service educational programs before, during, and after implementation, and key these criteria to the different purposes for evaluation. The criteria presented are generalized to be relevant to other in-service educational situations.

Smith, P. R., and M. M. Stewart. 1983. "Support Networks for Professional Development." ***Journal of Extension*****, 21(6):6–12.**

The authors point out that Extension professionals, who derive their support from complex cooperative interrelationships, have opportunities to cultivate multiple networks. Networking, helping others while they help you, is recognized as an important force for achievement in today's world. It can result in leadership exchange among groups, faster communication, and joint activities that can expand the outreach and community impact of those participating.

Zaltman, G., D. Florio, and L. Sikorski. 1977. ***Dynamic Educational Change*****. NewYork: The Free Press.**

From current models and strategies, the authors synthesized the "Proactive/Interactive Change Model." The basic assumptions are that change can be internally initiated and that educational systems are self-renewing.

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Model Building/Staff Development

Barrows, R. L. 1984. "Taking a Stand: Extension and Public Policies Issues." *Journal of Extension*, 22(2):6–12.

Barrows expresses the opinion that Extension should be involved in education on public policy issues and considers two teaching models (the Advocacy Model and the Alternatives-Consequences Model) in addressing the question: How to be involved? The Alternatives-Consequences Model is deemed more appropriate.

Diekhoff, G. M., D. S. Dansereau, and T. J. Brown. 1982. "A Prose Learning Strategy Training Program Based on Network and Depth-of-Processing Models." *Journal of Experimental Education*, 50: 180–184.

Relatively simple changes in cognitive activities during prose learning can have a substantial effect on how much and what kind of information is acquired, yet many students use relatively ineffective learning strategies. The authors describe a learning strategy training program (Node Acquisition and Integration Technique—NAIT), which is based on network models of long-term memory structure and depth-of-processing theory. Evidence is presented to support the effectiveness of the learning strategy training program in enhancing prose learning among college students.

Doelker, R. E., Jr., and P. A. Lynett. 1983. "Strategies in Staff Development: An Ecological Approach." *Social Work*, 28(5):380–384.

Factors such as licensure and certification requirements have contributed to the expansion of continuing education in social work. The authors propose a comprehensive approach to continuing education in the organization or agency in the form of an ecological model for staff training and development. This approach ensures control over the process of staff development, facilitates the design of a conducive learning environment, and accounts for various levels and phases of staff development.

Hart, H. A. 1974. "Self-Renewal: A Model." *Educational Leadership*, 31(6):449–501.

This model design is based on the principle that schools cannot change unless educators change. In-service education is the key to whether or not schools can meet the demands upon education.

Kamara, S. B., and C. W. Garner. 1986."Updating Crop Production Curriculum in Africa: A Model to Bring Educators and Practitioners Together." *Agricultural Education Magazine*, April, pp. 21–22.

A study was conducted to determine the plant science competencies with regard to three major crops grown in Sierra Leone. The study respondents were two groups of agricultural professionals—the Extension agents and senior agriculture officers (educators)—and farmers (practitioners). A significant difference was found between competencies perceived by educators and those perceived by practitioners. The authors concluded that the differences between what educators and practitioners perceived that practitioners should know and do demonstrates a gap that can hamper progress.

Lord, C. B. 1972. "A Classification System for Continuing Education Programs." *Adult Leadership*, 20(10):357–359.

In the classification system developed at the University of Georgia's Center for Continuing Education, all continuing education programs are categorized according to their primary purpose. A contributing consideration is the group to be served by the program. Each program is assigned to one of five broad areas. A major strength in the system is its flexibility in allowing the addition of subcategories to take care of institutional differences.

McLagom, P. D. B. 1983. "Models for Excellence." *Training and Development Journal*, 37(6):10-23.

The challenges of working in a global information and service economy will require continual education and training everywhere. A competent cadre of excellent training and development professionals can help workers in all sectors rise to the challenge. The American Society for Training and Development (ASTD) Competency Study is a major step toward professionalization of the very important field of training and development. The ASTD Competency Study presents nine products for training and development managers, practitioners, career aspirants, professors, and others who educate and train people for this field, and for ASTD as a professional society. Procedures for producing these products are outlined and recommendations for product utilization are presented.

Schmeek, R. R., and S. T. Meier. 1984. "Self-Reference As a Learning Strategy and a Learning Style." *Human Learning*, 3(1):9–18.

This study involves the experimental manipulation of self-reference as a learning strategy, coupled with the assessment of "naturally" occurring variation in the tendency to use such strategy (i.e., learning style). Results suggest that (1) self-reference is an effective learning strategy; (2) self-reference can be manipulated by instructional treatments; and (3) there is measurable variation in the extent to which students employ a self-reference strategy in their routine information processing.

Short, E. C. 1985. "The Concept of Competence: Its Use and Misuses in Education." *Journal of Teacher Education*, 34(2):2–6.

The writer attempts to clarify the meaning of "competence." According to him, competence can be conceptualized as a quality of a person or a state of being and as related to specific behavior or performances, command of knowledge and skills, and value issues, such as identifying degree of sufficiency of competence.

Needs (Assessment)/Evaluation

Archambault, R. D. 1957. "The Concept of Need and Its Relation to Certain Aspects of Educational Theory." *Harvard Educational Review*, 27(1):38–62.

The author attempts to examine various facets of the concept of need in light of its implications for educational theory. Three prime aims of the study are (1) to provide an analysis of the validity of the concept as a hypothetical construct; (2) to evaluate the concept as a basis for educational policy; and (3) to distinguish some of the more fundamental ways in which the term can be used by examining its implications and connotations.

Atwood, M., and J. Ellis. 1971. "The Concept of Need: An Analysis for Adult Education." *Adult Leadership*, 19(7):210–212.

The authors elaborate on three major senses in which the concept of need is used: prescriptive, motivational, and specialized. The concept of need implies a judgment of a type that is highly moral, critical, and evaluative of what ought to be. Further, it requires and presupposes some type of inclusive philosophy.

Bowen, B. E. 1985. "Using Microcomputers in Agricultural Education." *The Agricultural Education Magazine*, April, pp. 4–24.

Although the technology of microcomputers is quite effective and popular, it must be kept in perspective. The author maintains that microcomputers should be viewed as tools for improving the delivery of vocational-technical education. Applications contrary to this mission must be carefully studied because microcomputer uses in agricultural education are now a cut above the awareness and literary stages.

Darkenwald, G. C., and G. A. Larson (eds.). 1980. *Reaching Hard-to-Reach Adults*. New Directions for Continuing Education, –8. San Francisco: Jossey-Bass, Publishers.

In this volume, hard-to-reach adult populations are defined and described; the major obstacles to the participation of those adults in continuing education are identified; the relevant research and theory are reviewed and interpreted; and approaches to reaching the hard-to-reach that have been used successfully by various agencies are illustrated.

Griffith, W. S. 1978. "Education Needs: Definition, Assessment, and Utilization." *School Review*, 86(3):382–394.

The author examines the concepts of need and need identification, the process of need assessment as it is perceived by adult educators, and the evidence of the adequacy of need assessment in adult education in terms of participation.

Marrs, L. W., and D. T. Helge. 1978. "The Role of Needs Assessment in Program Planning and Evaluation." *Journal of Special Education*, 12(2):143-152.

Appropriately interrelating needs assessment strategies with program planning and evaluation efforts aid a school districts's abilities to fulfill increasing demands for "accountability." The authors established a specific frame of reference for needs assessment operations that uses the discrepancy approach with principles drawn from organization development. The discrepancy approach to needs assessment facilitates both short-term and long-term planning processes necessary for effective leadership and flexibility in a rapidly changing culture.

Parks, D. L. 1985. "State-Level Leadership for Vocational Agriculture." *The Agricultural Education Magazine*, June, pp. 16–17.

State leadership plays a key role in the development and improvement of vocational agriculture, according to Parks. It lends purpose and direction, on a statewide basis, and serves a connector function between the local departments and other components essential to a viable and comprehensive program. Each state's program leadership must be tailored specifically to the needs, opportunities, and interests of its clientele and the agricultural industry.

Planning/Model Building

Albert, A. V. 1985. "An Eye Toward the Future: Strategic Planning and Continuing Education." *Continuum*, 49(1):37–46.

A changing environment and new-found visibility have increased the emphasis on strategic planning for continuing education operations. The author attempts to outline a philosophy of strategic planning that can assist continuing education agencies in their efforts to capitalize on the opportunities presented by a dynamic environment on a new position as an integral mission of higher education.

Apps, J.W. 1985. *Improving Practice in Continuing Education*. San Francisco: Jossey-Bass, Publishers.

The author provides a systematic approach for understanding the field of continuing education, improving programs and practices, and making future decisions. By using a carefully developed analytical method, Apps examines five aspects of continuing education practice: adults as learners, aims for continuing education programs, teaching and learning, content and program development, and continuing education policy decisions.

Cole, J. M, and M. F. Cole. 1983. *Advisory Councils.* Englewood Cliffs, N.J.: Prentice-Hall, Inc.

This book emphasizes citizen involvement in planning decisions made in education, government, or business. It is a comprehensive approach to training people to use advisory groups in program development. It was written by extension educators and uses examples from the Cooperative Extension Service.

Douglas, W., C. J. Makela, J. McKenna, and G. Wallace. 1985. "Targeting Audiences and Using Creative Approaches." Fort Collins, Colo.: Colorado State University Cooperative Extension Service and USDA.

This guide presents the benefits of using a marketing strategy and provides examples of target audience profiles. Development of an effective message and creative delivery of the message to a target audience is explored. Questions to answer about audiences and sources of information to answer those questions are given as a guide to planning program implementation.

Elbow, P. 1986. *Embracing Contraries: Explorations in Learning and Teaching*. New York: Oxford University Press.

Based on his 12 essays on the nature of learning and teaching, the author suggests a comprehensive philosophy of education. The philosophy is applicable in both formal and nonformal settings. This book is organized into four parts: (1) the learning process, (2) the teaching process, (3) the evaluation process, and (4) contraries and inquiry.

Gibelman, M., and N. A. Humphreys. 1979. "Consumer's Guide to Continuing Education." *Social Work*, 24(5):401–405.

The authors delineate guidelines that social workers can follow in choosing the type of program that is best suited to their educational goals.

Jarvis, P. 1983. *Adult and Continuing Education: Theory and Practice*. NewYork: Nichols Publishing Company, Inc.

Jarvis introduces the broad sweep of the field of adult education. Topics addressed are contemporary concepts of adult education, some theoretical perspectives on adult learning, teaching/learning strategies, and curriculum theory in adult and continuing education.

Jarvis, P. 1985. *The Sociology of Adult and Continuing Education*. Dover, N. H.: Croom Helm, Ltd.

The author provides a comprehensive sociological overview of adult and continuing education. He draws on all branches of sociology and examines the theories of all significant sociological writers in the field, such as Knowles, Marx, Freire, and Gramsci. The content of the curriculum teaching-learning strategy and the place of adult education in society at large are discussed.

Klevins, C. (ed.). 1976. *Materials and Methods in Continuing Education*. New York: Klevens Publications, Inc.

This collection of essays is written by authors well-known in their respective fields: Malcolm Knowles, George Aker, John Peters, and Burton Kreitlow, to name a few. Topics include program development, curriculum development, the teaching-learning process, aids to learning, and staff development.

McClure, C. R. 1978. "The Planning Process: Strategies for Action." *College and Research Libraries*, 39(6):456–466.

The importance and purposes of planning as a means to increase organizational effectiveness are stressed in this article. A model of the planning process is presented, and the various components of the model are described in terms of implementation. The author suggests some pragmatic strategies and considerations that may facilitate the implementation of organizational planning in an academic library.

Rosenblum, S. H. (ed.). 1985. *Involving Adults in the Educational Process.* New Directions for Continuing Education, -26. San Francisco: Jossey-Bass, Publishers.

Topics on how continuing educators can successfully involve their adult students in the educational process are explored. The chapter titles are "Fostering Participation in Learning," "The Adult's Role in Educational Planning," "Enhancing Participation Through the Nominal Group Technique," "Discussion As an Effective Educational Method," "Involving Adults in Social Change Education," "Reflections of a Teacher of Adults," and "The Adult Learner: Central to the Planning-Learning Process."

Stephens, M. D., and G. W. Roderick (eds.). 1974. *Teaching Techniques in Adult Education.* NewtonAbbot, England: David and Charles.

This book is primarily a collection of essays on the various teaching techniques in adult education. These techniques/methodologies include practical training, individual tuition, group discussion, role-playing, simulation, and programmed instruction. Included are an essay on teaching aids and a chapter on the uses of broadcast materials.

Yost, A. E. 1986. "Using Slides Intelligently." *Journal of Career Planning and Employment*, 46(4):30-35.

This "how to do" article provides readers with tips on how to design slides and how slides should be used for effective communication.

Youker, R. B. 1985. "Ten Benefits of Participant Action Planning." *Training*, 22(6):52-56.

The participant action-planning approach, according to Youker, is a simple but powerful training process in which each trainee prepares a list of concrete actions or changes that he or she plans to make back on the job, once the training program is over. To support the theory, Youker lists 10 participant action-planning benefits.

Renewal/Model Building

Ahmed, M. 1973. *The Economics of Nonformal Education: Resources, Costs, and Benefits.* New York: Praeger Publishers.

In this volume, Ahmed discusses the economic aspects of nonformal education, i.e., resources, costs and benefits, and cost-effectiveness of nonformal education. He also deals with the uses of economic analysis in planning and managing nonformal education.

Birkey, C., and J. Moon. 1984. "Future Directions for Adult Education and Adult Educators." *Journal of Teacher Education*, 315 (3):25-30.

The authors' intent in this essay is to present a view of the impending realities of an informational society in the context of education, especially adult education. They attempt to answer the following questions: What features of our educational system restrict individual competence in an informational society? What should adult educators be focusing upon to assist adults in coping with and finding roles within an information society?

Clouse, J. P. 1985. "The Agricultural Teacher: The Key in Program Improvement." *Agricultural Education Magazine*, May, pp. 22-23.

The agricultural teaching profession has its own ideas of what constitutes or makes an effective teacher. Clouse delineates 10 characteristics that are important to the effective fulfillment of an agricultural teacher's responsibilities.

Ferrell, B. G. 1983. "A Factor Analytic Comparison of Four Learning-Style Instruments." ***Journal of Educational Psychology*****, 75 (1):33-39.**

The author administered four learning-style instruments, differing in form, length, language, and conceptualization of learning style, to 471 high school and community college students. Factor analysis of the data contributed to the validation of only one of four conceptualizations of learning styles. All four instruments measured behaviors outlined by one conceptualization in the literature to comprise learning style, but none of the instruments measured all types of behavior. Although some overlap of factors existed among the four instruments. Ferrell concluded that the instruments clearly were not measuring the same thing.

Goldstein, S. 1984. "Communication Technology and Continuing Education." ***Continuum*****, 48(3):169-178.**

Three relatively recent developments in TV communication technology are the principal areas of focus in this paper, i.e., the communications satellite, multichannel cable systems, and home video playback devices. The current and possible future applications of each to continuing education programs are examined. Two major deterrents to the development of effective continuing education media programs also are investigated.

Jarvis, P. 1986. "Notions of Development and Their Implications for Adult Education." ***International Review of Education*****, 32 (1):85-95.**

Jarvis explores possible relations between development and four ideological perspectives on education: conservative, liberal, reformative, and radical. According to the author, there is a correlation between ideological approaches to education and the notions of development. Jarvis concluded that both development and adult education are not politically neutral processes; thus, the relationship between them must be one that involves the power structure of the society.

Joyce, B. and B. Showers. 1980. "Improving In-Service Training: The Messages of Research." ***Educational Leadership*****, 37(5):79-385.**

To be most effective, in-service training should include theory, demonstration, practice, feedback, and classroom applications, according to Bruce and Showers. The five components of training are listed as (1) presentation of theory or description of skill or strategy; (2) modeling or demonstrating skills or models of teaching; (3) practice in simulated and classroom settings; (4) structured and open-ended feedback; and (5) coaching for application. The authors suggest that, for maximum effectiveness, it is best to include several and perhaps all of the training components.

Joynt, P. 1983. "Research-Based Projects As a Learning Strategy in Business Schools." ***Human Relations*****, 16(1):69-91.**

Joynt presents a summary of a new learning strategy for practicing managers who attend courses in business schools. Experimental, experiential learning combines the research process (experimentation) with the practical managers' everyday life (experiences in organization behavior).

Heinich, R., M. Molenda, and J. D. Russell. 1982. ***Instructional Media and the New Technologies of Instruction*****. New York: John Wiley and Sons, Inc.**

According to the authors, this book is intended for educators at all levels. They discuss applying media and technologies of instruction in learning situations and the role of mass media. The ASSURE Model of instructional planning is introduced. Visual literacy also is examined from the standpoints of interpreting and producing visual media. The most common audiovisual formats, such as graphic materials, projected visuals, audio materials, multimedia systems, film, and TV, also are discussed. Chapters on media ware and technologies of instruction are included.

Lindsay, M. 1984. "Teacher Effectiveness in Adult Education." *Journal of Teacher Education*, 35(3):2–7.

The author presents a summary of literature reviews of current practices in adult education. The summary was prepared to assess the status of teacher effectiveness in adult education and thereby aid teacher educators in preparing effective instructors of adult learners. The assessment includes an examination of methodology and findings with regard to what constitutes the desirable knowledge, skills, and personality characteristics of teachers of adult.

Lippitt, G. L. 1976. "Criteria for Evaluation HRD." *Training and Development Journal*, 30(10):3–11.

The field of human resource development is represented by the interaction of community and societal development, individual development, organizational development, and group development. Lippitt presents a sequence of criteria with which to review, diagnose, and evaluate effectiveness of plans, processes, activities, and programs.

McCarthy, B. 1985. "What 4MAT Training Teaches Us About Staff Development." *Educational Leadership*, 42(7):61–68.

According to the author, instruction based on learning styles and brain dominance applies to the education of teachers as well as to students. Our present style of teaching, which relies mostly on lecture and question-answer methods, appeals to only one type of learner. The development of expertise in dominant modes of learning produces leaps to higher levels of learning.

Merriam, S. B. (ed.). 1984. *Selected Writings on Philosophy and Adult Education.* Malabar, Fla.: Robert E. Kneiger Publishing Company.

This is a collection of philosophical thoughts on education, in general, and adult education, in particular. The philosophers are John Dewey, Eduard Lindeman, Paulo Freire, Carl Rogers, and Ivan Illich.

Oddi, L. 1983. "The Lecture: An Update on Research." *Adult Education Quarterly*, 33(4): 222–229.

The author writes that, in reviewing research on the lecture methods, one finds little effort directed to the effectiveness of the lectures in adult education, especially in nonclassroom settings. The previous clear dichotomy between lecture and other methods no longer exists, but has evolved into a consideration of collaborative learning approaches versus self-directed study. The need for renewed efforts to examine the appropriate use of the lecture in adult learning situations is deeply felt.

Patton, M. O. 1985. "Extension Excellence in the Information Age." *Journal of Extension*, 23(3):4–7.

Cooperative Extension, with its traditional people orientation, is well-poised on the cutting edge of the information age to help move people toward higher quality ways of living, says Patton. In this regard, Extension's high technology is not machines and computers. Rather, it is a state of mind. Patton explains that the high technology state of mind is the one that works with people in applying knowledge and information to solve important problems and thereby create a better world. That is the business of Extension—that is Extension excellence.

Sherman, R. M. 1986. "The Essence of Good Teaching." *Educational Studies*, 17(1):16–28.

In this essay, the writer reviews five books on teaching: (1) *My Harvard, My Yale: Memories of College Life by Some Notable Americans*, by Louis J. Rubin; and (2) *Artistry in Teaching*, by Louis J. Rubin; and (3) *The Essence of Good Teaching: Helping Students Learn and Remember What They Learn*, by Stanford E. Eriksen.

Smith, R. M. (ed.) 1983. *Helping Adults Learn How to Learn*. New Directions for Continuing Education, -19. San Francisco: Jossey-Bass, Publishers.

Some methods and resources for helping adults to learn more effectively are described, and a rationale is provided for persons who make relevant administrative, programmatic, and instructional decisions.

Training/Staff Development

Anderson, R. J. 1983. *Selecting and Developing Media for Instruction*. New York: Van Nostrand Reinhold Company, Inc.

The author offers guidance for selecting, using, and evaluating instructional media. Covered in detail are projected still visuals—overhead transparencies, slides, and filmstrips; and motion visuals—video and film, audiovisuals, printed materials, physical objects, and computers. The advantages and disadvantages of each medium are discussed. Handy checklists, charts, and rules-of-thumb facilitate decisionmaking in selecting and developing media.

Baehr, M. E. 1984. "The Empirical Link Between Program Development and the Performance Needs of Professionals and Executives." *Continuum*, 48(3):157–168.

The empirical identification of performance-critical needs undertaken in this study is an approach to program development that will be directly responsive to individual and organizational needs. The study is limited to key positions in the three, three-rung management hierarchies: line hierarchy, professional hierarchy, and sales hierarchy.

Bergevin, P., and J. McKinley. *Participation Training for Adult Education*. St. Louis, Mo.: The Bethany Press.

The authors advocate a program of learning that emphasizes learning through understanding one's relationship and responsibility to other persons in the learning process. This idea of adult learning is called group-participation training. According to the authors, the manual is intended as a guide and resource for both trainers and other participants in the group.

Bezoek, J. 1985. How to Teach Technical Subjects to Nontechnical Learners." *Training*, 22(4):73–81.

In this article, the writer suggests a few techniques that can facilitate the teaching of technical subjects to nontechnical learners.

***Convergence*. 1985. Special Issue of the *International Journal of Adult Education*. Toronto, Canada: International Council for Adult Education.**

In this three-part volume, the focus is on training adult educators. A conceptual framework in which adult educators are classified according to the roles they occupy and outcomes they seek is in Part I. State-of-the-art surveys of training in different countries (North America, Latin America, Africa, Europe, Asia, and others) are presented in Part II. Case studies of training of adult educators in diversified fields in different countries appear in Part III.

Duncan, J. 1985. "How to Use Transparencies: A Refresher Course." *Training*, 22(7):27–29.

The author reviews the basics of effective use of transparencies. He also provides tips on designing and preparing transparencies.

Elliot, G. 1984. *Video Production in Education and Training*. London: Croom Helm, Ltd.

The process of video production is discussed in depth. The author elaborates on and discusses the following stages in video production: preparatory, recording, and program presentation. Guidance to educators and trainers on effective use of videos also is provided.

Ericksen, S. C. 1984. *The Essence of Good Teaching.* San Francisco: Jossey-Bass, Publishers.

In this book, the author examines research on learning, thinking, memory, and motivation to provide insights on the facilitation of learning. He reveals how instructors can improve their teaching methods and techniques to enhance student motivation, comprehension, retention, and independent learning. Ericksen also discusses how a course syllabus should be organized to build student interest, and what teaching strategies should be adopted for interesting and effective learning.

Grabowski, S. M., and Associates (eds.). 1981. *Preparing Educators for Adults*. San Francisco: Jossey-Bass, Publishers.

The themes of this book are the preparation of adult educators and the training conducted by adult educators. The adult educators referred to by the authors include part-time and full-time instructors, paraprofessionals, and volunteers. The types of training of volunteers, preservice training, training in organizations, and training in business and industry.

Jackson, C. 1985. "Training's Role in the Process of Planned Change." *Training and Development Journal,* 39(2):70–74.

This article is not about training; it is about how to make training work. The author draws from expectancy theory and change theory to explore principles of individual learning. He presents a seven-step model for optimizing learning transfer—from selecting trainees to reentering the work place.

Lowman, J. 1984. *Mastering the Techniques of Teaching*. San Francisco: Jossey-Bass, Publishers.

Two models are of special interest in this book. The first is the "model of teaching effectiveness," upon which the book is based and in which Lowman suggests that teachers survive because they satisfy the need for dramatic spectacle and offer an interpersonal arena in which important psychological needs are met. Lowman sees mastery of the enduring and traditional skills of lecturing as the best way to improve college instruction. In this light, he identifies and elaborates on the forms of lecture, steps for organizing lectures, and the keys to successful lecturing. The second model, which Lowman refers to as a "two-dimensional model of teaching effectiveness," is one in which the quality of instruction depends upon the college teacher's skill in creating both intellectual excitement and positive rapport in students. These skills are relatively independent, and excellence in either can ensure effective teaching with some students and in certain types of classes.

Martin, B. L. 1984. "Internalizing Instructional Design." *Educational Technology,* 24(5):24–28.

According to the author, instructional design must become internalized; that is, it must become part of the designer's way of thinking and behaving. With that contention, the writer describes the variety and types of products designers produce, and lists three critical attributes of the designer who has internalized the process of instructional design.

Miller, M. D. 1984. "The Use of Simulation in Training Programs." ***Educational Technology*, 24(11):29–36.**

The writer (1) describes the uses of simulation method in educational and training programs; (2) discusses the advantages of simulation as a teaching method; (3) describes learning objectives appropriate for simulation; and (4) analyzes the validity of simulation as a learning tool.

Pratt, D., and M. K. Magill. 1983. "Educational Contracts: A Basis for Effective Clinical Teaching." ***Journal of Medical Education*, 58(6):462–467.**

An educational contract is a negotiated agreement between a teacher and a learner. Research to validate the concept of the educational contract and to document its utility is important to understanding effective clinical teaching.

Reiser, R. A., and R. M. Gagne. 1983. ***Selecting Media for Instruction*. Englewood Cliffs, N.J.: Educational Technology Publications.**

The authors describe a new media selection model that takes concrete form as a flowchart for use in the task of instructional design. According to the authors, this book is primarily addressed to instructional designers, to facilitate them in selecting media systematically. Potential applications of the model in education and training are explored.

Rosenberg, M. J. "The ABC's of ISD." ***Training and Development Journal*, 36(9):44–57.**

The Instructional Systems Design (ISD) model provides a procedure for systematically identifying and manipulating significant components that make up the instructional process, the goals of which are increased learning and improved performance. ISD can be thought of as a series of processes, all leading to the development of that meaningful and effective training program or product. Most ISD approaches contain five major phases—analysis, design, development, implementation, and evaluation.

Spitzer, D. 1986. "Five Keys to Successful Training." ***Training*, 23(6):37–41.**

In this two-page article, Spitzer identifies nine reasons why training fails and suggests five methods to combat the failure.

Wilsom J. P. (ed.). ***Materials for Teaching Adults: Selection, Development, and Use*. New Directions for Continuing Education, -17. San Francisco: Jossey-Bass, Publishers.**

Information is provided on the wide array of educational materials that can be used in teaching adults. Also discussed are how adult educators can select, develop, adopt, evaluate, and use the materials effectively.

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Working With Our Publics

Module 2. The Extension Education Process

Leader's Guide

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Introduction to the Leader's Guide for Module 2: The Extension Education Process

The primary purposes of **Module 2: The Extension Education Process** are for participants to:

1. Understand the uniqueness of the practice of Extension;

2. Appreciate the application of nonformal adult education principles and concepts in the Extension education process;

3. Understand and apply the basic principles of the Extension education process; and

4. Develop and refine the knowledge, skills, and attitudes Extension educators need to implement the Extension education process.

The objectives of Module 2 are to:

1. Build understanding and appreciation of the Extension education process;

2. Build understanding of the assumptions, concepts, and premises that underlie the Extension education process; and

3. Increase skills in implementing the Extension education process.

As practitioners of nonformal and adult education, Extension educators must understand and be able to facilitate the interaction of the basic elements that comprise the Extension education process. In addition to the *learner*, these elements are the *educator* (or teacher), the *context* of the learning situation, and the *content* to be learned.

Many of the educational activities in this Module use "Adams County, U.S.A.—A Case Study" as a point of reference. This method requires some responsibility by the participants for their own learning; provides a common source of data for group discussions; and is a representation of a realistic setting in which skills can be learned and practiced. The use of case study groups helps to increase the realism through the interaction and exchange of ideas, values, and skills. It also can provide opportunities for leadership development through involvement in group processes.

The Role and Responsibilities of Leader(s) of the Module 2 Workshop

The workshop leader(s) must help the participants to become involved in the learning activities. The leader must ensure that learning activities are in accord with these learners' needs and that the learners have a clear understanding of what is expected of them. The leader is responsible for keeping an open and comfortable climate, both physical and psychological, for the learners. The leader must provide positive reinforcement and constructive feedback by continuing to monitor and evaluate the learning process. The leader is responsible for helping the learners to synthesize and transfer the knowledge, skills, and attitudes gained to the learners' work environment.

Presentation of Module 2 requires the leader to give short lectures, lead discussions, and facilitate a variety of group learning activities. Exercises are provided, with step-by-step directions, but skills in group processes will help make them more effective. Expertise in the content of **Module 5: Working With Groups and Organizations** is helpful for leaders to have before leading this workshop.

It is recommended that a team teaching approach be used. The team should consist of a training leader, who has expertise in staff development, and one or more of the following: a district or area administrator, a department head, a state specialist or administrator, and possibly a County Extension administrator or an experienced County Extension agent.

This team will help to provide a variety of expertise, and will allow team members who have differing responsibilities and backgrounds to have input into the training.

Methodology Tips

The following information will be helpful in preparing to lead the workshop. A general description of the workshop is provided and suggestions for preparation of materials, implementation units, and use of this Leader's Guide are given.

General Length and Scheduling

The *minimum* time required for this training is 24 hours. The training can be more effective by allowing additional time for processing information. Longer discussions on some subjects and exercises can provide more in-depth understanding for participants. There also are alternative activities that, if used, would lengthen the total time needed. The length of time (minimum) for each activity is provided under Learning Activities and Key Points.

Each of the six units in Module 2 requires four hours. It is suggested that a 15-minute break be scheduled about midway through each unit.

Methods to Be Used

The leader(s) will be expected to use illustrated lectures and discussions, lead group activities, show slide-tape sets and videotapes, and use flip charts and overheads (transparency masters). For further information, refer to "Role and Responsibilities of Leader(s)."

Equipment and Logistics

A room large enough for groups of 3 to 7 learners to hold small group discussions without disturbing each other is needed. Adequate lighting, comfortable temperature and seating, and freedom from distractions should be ensured. The following equipment is needed.

Flip charts and felt-tipped markers or blackboard and chalk.

Slide projector and synchronized tape player.

Videotape player (VHS) and monitor.

Slide screen.

Overhead projector.

Extension cord.

IBM PC computers, color monitors, and printers for groups of two to share a system.

Notes on Using This Leader's Guide

Each of the six units in Module 2 is divided into two basic sections. The first section includes an overview of the unit and information helpful in preparing to conduct the workshop. The second section of each unit is divided in two columns, and provides step-by-step instructions for the actual workshop. The column on the right, entitled Leader Notes, contains in-depth descriptions and instructions. The column on the left, entitled Learning Activities and Key Points, identifies the experience and includes short phrases that describe the purpose, procedure, and key points for that experience.

The columns in the second section of each unit can be used in several ways. The Leader Notes can be studied in depth, prior to the workshop. The Learning Activities and Key Points column then can be used as a reminder and guide during the actual workshop presentation. The leader also may want to use some of the introductions, summaries, discussion questions, and lecturettes that are provided in the Leader Notes, or develop others that are appropriate for particular situations. Suggested quotes in the Leader Notes are set in italics.

Other Information

The tables in the appendices to "Adams County, U.S.A.— A Case Study" are based on actual public documents. They are presented in formats that represent how the Extension educator would find them in the real world. Years with numbers (e.g.., Year 5) are used in place of actual calendar years. Also, state data are left out, in most cases, so that the case can be adapted to different states or regions. You can provide workshop participants with the missing data, or have them collect it prior to coming to the workshop.

It is important that the leader or leader team for Module 2 demonstrate those basic principles of nonformal adult education that undergird the Extension education process. Leaders should remember that any violations of sound, nonformal, adult education principles sends conflicting and confusing messages to the workshop participants.

For example, the Extension education process places emphasis on involving learners in needs assessment and other phases of the learning process. Collaboration between the educator and the learner is paramount. One way to demonstrate how the educator and the learner can be formally linked is through forming an advisory group of workshop participant representatives to work with the leader team as the Module is implemented. This advisory group can consist of a representative group of 3 to 7 participants. The group should be oriented to the activities planned; give reactions and suggestions for adjustments; and meet on a regular basis to evaluate progress during the workshop. Their primary responsibility is to represent the needs and concerns of the learners to the leader.

Agenda for Module 2

Unit I. Planning: Adult Education Principles and Organizational Renewal

Slide Set: "Nature, Structure, and Function of the Extension Education Process"

Discussion: "Expectation Sharing"

Exercise 1: "Understanding People As Learners"

Exercise 2: "Understanding the Learners' Situation"

Discussion: "The Roles of an Extension Educator"

Discussion: "Organizational Renewal"

Videotape: "A Conceptual Programming Model, Part I"

Time: 4 hours

Unit II. Planning: Linking the Organization With Its Publics

Discussion: "Linkage and Accountability"

Introduction to "Adams County, U.S.A.—A Case Study"

Exercise 3: "Linkage"

Videotape: "Linking With Relevant Groups"

Discussion: "Concept of Needs"

Exercise 4: "Collaborative Identification, Assessment, and Analysis of Needs"

Time: 4 hours

Unit III. Designing the Planned Program

Videotape: ''A Conceptual Programming Model, Part II''

Discussion: ''Why *Planned Programs?*''

Lecture: ''Developing Objectives''

Alternative 1: ''Measurable Objectives''—Computer Program

Alternative 2: ''Developing Measurable Objectives''—*Connections*

Exercise 5: ''Translating Needs to Objectives Hierarchies''

Exercise 6: ''Designing Change Strategies''

Time: 4 hours

Unit IV. Implementing the Planned Program

Discussion: ''How People Become Involved''

Discussion: ''The Adoption Process (Innovation-Decision)''

Discussion: ''Keeping Learners Motivated''

Lecture: ''Learning Preferences''

Exercise 7: ''Learning Activities Selection Criteria''

Exercise 8: ''Designing Learning Activities''

Slide Set: ''Action Strategies''

Time: 4 hours

Unit V. Evaluation

Videotape: ''A Conceptual Programming Model, Part III''

Discussion: ''Principles and Models of Evaluation''

Exercise 9: ''Identifying Levels of Evidence''

Discussion: ''Documenting Learner Changes/Sources of Evidence''

Exercise 10: ''Designing Evaluations''

Exercise 11: ''Reporting Programs''

Time: 4 hours

Unit VI. Accountability

Discussion: ''Principles of Accountability''

Exercise 12: ''Accountability to Relevant Groups''

Oral Presentations: '' Case Study Reports''

Discussion: ''Self-Directed Learning in a Democratic Society''

Activity: ''Self-Directed Professional Improvement Projects''

Summary Discussion of Module

Exercise 13: ''Evaluation of Module Experiences''

Time: 4 hours

Unit I. Planning: Adult Education Principles and Organizational Renewal

In Unit I we focus on two important foundations of planning adult education programs. The first foundation is that an understanding of adult education principles as they relate to understanding the learners is needed in effective planning. The second foundation is that planning is part of a total programming process for organizational renewal that is based on collaboration with and involvement of the learners in that process.

Overview of Unit I

The purpose of Unit I is to provide the learner with experiences that can build an understanding of (1) peoples' needs as learners, (2) a planning process that bases programs on those needs, and (3) the importance of a conceptual programming model to organizational renewal.

Expected Outcomes of Unit I

Participants in this workshop will

1. Be able to develop a rationale for using the Extension education process;

2. Be able to identify differences in educational needs of learners;

3. Be able to identify adult education principles and understand their significance to the Extension education process; and

4. Understand the importance of organizational renewal.

Before You Begin

You will need to have available the materials listed for this unit. Discussions are designed to share participant experiences, so being familiar with the discussion questions, Key Points, and scripts for each learning activity prior to implementing the workshop can be extremely helpful. If it is not possible to view the slide-tape set and videotapes prior to the workshop, it can be helpful to read the content outline provided in the Key Points for the respective presentation.

You also will need to be familiar with current societal issues that are affecting Extension. For example, at the time of this writing, the first set of National Initiatives was being developed. Developing issue-based programs is compatible with elements and procedures for the Extension education process, as presented in this Module. Sources for identifying issues are reports from Extension advisory committees, government reports, and media reports, such as newspapers and magazines.

Materials and Equipment

Slide projector (with tape synchronization features).

Cassette tape player (with slide synchronization features).

Slide screen.

Flip chart (easel and pad) or blackboard.

Felt-tipped marker or chalk.

Videotape player.

Video monitor.

Exercise 1: "Understanding People as Learners" (Learners' Packet)

Exercise 2: "Understanding the Learners' Situation" (Learners' Packet)

Slide set: "Nature, Structure, and Function of the Extension Education Process" (Instructional Aids)

Videotape: "A Conceptual Programming Model" (Instructional Aids)

A copy of the Sourcebook for each workshop participant.

Room Setup

You will need to have sufficient room to accommodate the total group of participants and to divide them into small groups of 3 to 7 participants. Remember to model good adult education principles by having adequate lighting, comfortable seating and temperature, and freedom from noise and distractions.

Agenda

Welcome

Slide Set: "Nature, Structure, and Function of the Extension Education Process"

Discussion: "Expectation Sharing"

Exercise 1: "Understanding People As Learners"

Exercise 2: "Understanding the Learners' Situation"

Discussion: "The Roles of an Extension Educator"

Discussion: "Organizational Renewal"

Videotape: "A Conceptual Programming Model, Part I"

Total time for Unit I: 4 hours.

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Learning Activities and Key Points	**Leader Notes**
Welcome (5–15 minutes) **Key Points** 1. Introduction of facilitators. 2. Climate setting. 3. Introduction of participants	Introduce yourself and any team members who are helping with this workshop. Welcome the participants, and stress the importance of this training to their roles as Extension educators; Extension's mission to improve the quality of life; and current issues that are affecting Extension's publics. Ask the participants to introduce themselves, give their assigned county or department and their area(s) of responsibility.

Learning Activities and Key Points	**Leader Notes**
Slide Set: "Nature, Structure, and Function of the Extension Education Process" (30 minutes) Refer to "Introduction" of Sourcebook. **Purpose of the Slide Set** To introduce participants to concepts and principles upon which the Extension education process is based. **Key Points:** 1. Programming with the Extension education process includes the following elements of the learning process in planning; • Learner • Educator • Context, and • Content. 2. The Extension education process provides: • A rational framework for programming,	This slide set is a summary of the reasons why we use the Extension education process, and the skills that Extension agents and specialists need for planning, designing and implementing, and evaluating and accounting for programs. It can be introduced as follows: *Extension educators are expected to give accurate, research-based information. This means Extension agents and specialists must maintain their personal knowledge of current research in their subject matter. But, the ability to deliver programs that are needed and effective in your area of expertise requires skills in both educating and planning. To introduce you to program planning in the Extension education process, we have a slide set in which you will hear experienced Extension agents and specialists telling about the skills they have found useful to them in planning Extension programs. These skills will be discussed in terms of the elements and principles included in the Extension education process.* [Show slide set.] The slide set can be summarized by leading the group through the following discussion questions: *1. What did the agents and specialists see as important reasons for planning programs?* *2. What basic principles or elements did they feel were important for an effective planning process?*

- The learners' involvement in planning;
- A climate for long-term, positive learning; and
- Opportunities to nurture conditions that can be helped by Extension.

3. Extension educators need skills and beliefs in:

- Understanding adult learners and Extension education principles;
- Planning for positive change;
- Understanding social systems and groups;
- Collaboration: working with leaders and learners in planning programs;
- Using the results of collaboration in planning to design and implement programs; and
- Evaluating and accounting for the effectiveness of Extension programs.

3. What knowledge and skills does an Extension educator need to be effective in planning, implementing, and evaluating programs?

[*Note:* Some discussion of the difference in roles may surface. These differences can be dealt with here, or deferred until its scheduled time later in this Unit.]

4. How do you feel about planning programs? [This last question can lead into the next discussion, Expectation Sharing.'']

Learning Activities and Key Points | **Leader Notes**

Discussion: ''Expectation Sharing'' (Approximately 20 minutes)

Purpose of the Discussion:

To help provide a positive and comfortable learning environment and to address participants' concerns.

Procedure:

1. Discuss the overall objectives and format for the

Adult education principles tell us that learners need to know what is expected of them in order to feel comfortable. They also need to be a part of setting those expectations, so that learning is related to their needs and proficiencies and is provided in an adult-like atmosphere in which participants take responsibility for themselves. These principles can be explained to the participants. The following topics can be discussed.

1. Feelings about planning, in general, and the time it takes, its value, and its relationship to how participants perceive client needs.

2. What Module 2 will provide, and how the topics can be helpful. What other topics would be helpful?

workshop and what is expected of participants.

2. Discuss participants' reaction to these expectations and objectives.

3. Discuss physical and emotional needs of participants.

Key Points:

1. Leaders give participants an idea of what to expect.

2. Give participants the opportunity to react to plans for the training and other expectations.

3. Respond to the participants' physical and emotional needs, such as bathroom locations and planned social activities.

Discussion of this question could provide opportunities to use other modules in the *Working With Our Publics* series. Not all topics raised need to be addressed in this Module.

3. Housekeeping needs: need for breaks, location of bathrooms, smoking rules, and so forth.

4. Expectations, such as participation in discussions, leadership in case study groups, and other performance expectations, can be presented or discussed.

5. How concerns that arise during the training will be handled. If an advisory committee is formed, introduce the members and explain the committee's purpose. (Suggestions for forming an advisory committee are in the Leader's Guide, "Overview").

You could use comments similar to the following to introduce this discussion:

Educational research tells us that people may retain and use knowledge better if they know what is expected to happen as a result of their learning experiences, and have a say-so in both the experiences and the expected results. We are applying those principles by sharing information with you about what we hope will happen here, and giving you the opportunity to help make that happen, or to offer viable alternatives.

Learning Activities and Key Points

Leader Notes

Exercise 1: "Understanding People As Learners" (45 minutes)

Refer to Exercise 1 (Learners' Packet) and "Elements of the Extension Education Process" in "Introduction" of the Sourcebook.

Purpose of Exercise 1:

To understand personally the concepts of adult learning styles and individual needs.

The purpose of Exercise 1, "Understanding People As Learners," is to help the participants begin to understand that people have different learning needs. Dividing into groups of 3 participants is suggested because of the time it will take for each participant to share his or her experiences. Also, it will generate more experiences to compare than groups of 2, and can be less intimidating than larger groups. Refer learners to Exercise I, Parts A and B (in Learners' Packet). You can use comments similar to the following to introduce the exercise.

In the slide set we just viewed, Extension agents and specialists said that using a process that links our organization to our publics is important to being an effective Extension educator. Exercise 1 is to help you understand some of the

Procedure:

1. Analyze a personal learning experience (Part A).

2. Share the experience, identifying similarities and differences (Part B).

3. Discuss Key Points as a total group.

Key Points:

1. Adults have preferences for the way they want to learn, i.e., in a group or by themselves, from a book, or by watching a demonstration.

2. These preferences may be similar to or different from the way others learn.

3. Adults have knowledge, skills, or attitudes that they need, or desire to learn, that differ from those of other adults.

4. Programs must be planned to help people learn the things they need to learn in ways that are comfortable for them.

5. [The following may be discussed now, or in Unit IV.] Successful use of a variety of teaching methods can meet a variety of needs, and also help learners to be flexible in their learning style.

educational needs that we and our publics have, and the significance those needs have in designing Extension programs. First, we would like each of you to think of a learning experience that you consider one of the best that you have had as an adult. This experience could be a course you took in school, a problem you solved on your own, or a project or hobby you decided to learn.

Pause for a few moments to give participants a chance to recall an incident. Ask if they have one in mind, and give them time until they do. Then proceed with:

Think about what your life was like at that time. What was a typical day like? Who were the important people in your life? What were some things you were trying to accomplish?

After giving the participants a few moments to reflect, ask them to complete Part A of the exercise individually. Tell them that they will discuss Part B with the others in their group. Give them about 10 minutes to complete Part A; then explain Part B, using comments similar to the following:

Now, we would like you to share these experiences with the others in your group. First, take turns describing your experiences; then discuss any similarities or differences that you may discover.

Give the learners about 20 minutes to complete Part B; then lead a discussion on Exercise 1. Questions similar to the following could be used:

1. What were some of the similarities and differences you found in the ways that you learned what you set out to learn?

2. What do these similarities and differences suggest to you, as an Extension educator, in planning programs for other adults?

If the subject does not arise, you may want to ask:

3. What does this suggest about working with groups or working with individuals?

4. Are there any methods that we or your group discussed that you don't particularly like as a *way to learn? What are they? Does this have any implications for planning programs?*

5. Do you think you are representative of a group of Extension clientele? How are you representative? How are you not representative?

6. Are the characteristics, interests, and preferences we have identified representative of the groups with which you work? How, or how not?

Exercise 1 can be summarized as follows, or adapted to your actual discussion:

This exercise has helped us to identify some similarities and differences in the way we learn. These similarities and differences are called learning styles. We will examine learning styles in more detail later. For now, there are differences in the ways adults want to learn. There is more to designing effective programs than just scheduling a meeting and inviting people to come.

Learning Activities and Key Points

Leader Notes

Exercise 2: "Understanding the Learners' Situation" (30 minutes)

Refer to Exercise 2 (Learners' Packet) and to "Elements of the Extension Education Process" in "Introduction" of the Sourcebook.

Purpose of Exercise 2:

To help participants understand how contexts affect involvement in the learning process.

Procedure:

1. Discuss the four elements of the learning process in relation to what participants are experiencing in this Module.

The purpose of Exercise 2, "Understanding the Learners' Situation," is to help the participants to understand that, not only do personalities and other learner characteristics affect what and how we learn, but also situations affect learning experiences. Exercise 2 can be introduced as follows:

1. In the slide set we viewed, four elements of the learning process were identified. What were these? [Answer: learner, educator, context, and content.]

2. Which of these elements were we examining in Exercise 1 on understanding people as learners?

The group may give "the learner" as the answer, but may identify the interrelationships of the other elements, as well.

3. When we shared expectations for this workshop and discussed other needs, were any of the elements relevant to that discussion?

2. Divide participants into small groups of 3 to 7. Refer them to Exercise 2; have them discuss the exercise for about 15 minutes.

3. Lead the entire group in a discussion to bring out the Key Points.

Key Points:

1. Learners not only have their own personality characteristics, but also come from unique situations that affect their learning experiences.

2. Extension educators must develop skills in discovering and understanding learners' situations.

3. Extension educators must design programs to include strategies for learning, based on learner needs and contexts.

All four elements could be identified, depending on the items discussed under Key Points in Exercise 1. If **Module 1: Understanding Cooperative Extension** has been used with the participants, you could ask,

4. Which of these elements were present in Module 1? Most obvious are content and educator, but context and learner also can be discussed.

The element we are about to look at a little closer is "context." As you probably are beginning to realize, context becomes the situation that is the sum total of everything that affects the learning process. The way the Extension educator designs and implements a program can create physical and psychological contexts that may be comfortable or uncomfortable for the learners. The context of the organization will affect what content is delivered, and the personalities or situational context of the learner can determine whether that content is positively or negatively received. Context is explored further in ***Module 4: Situational Analysis.*** *In Exercise 2, you will examine a situation and identify factors that are affecting a family's involvement in an Extension program.*

Refer learners to Exercise 2: "Understanding the Learners' Situation." You may want to ask the participants to read the case and discussion questions to see if anything needs clarifying. You can have the participants remain in the groups they were in for Exercise 1, or ask them to form new ones. Groups of no more than 7 are recommended for optimal participation. Directions for Exercise 2 can be given as follows:

Examine the case carefully and discuss the questions listed. We will take about 15 minutes for your group to discuss the case. Then we will come back together and share your responses for 5 or 10 minutes more.

You may want to circulate among the groups as they discuss the case so that you will be available for questions. After 15 minutes, or sooner, if the groups have finished their discussion, a discussion can be led by using either the questions that follow, or your own questions.

1. What makes the Smith's situation different or unique?

2. What skills do you need as an Extension educator to discover and understand learners' situations?

3. How can we use this information about personalities and situational contexts in planning programs?

Exercise 2 can be summarized by going over Key Points with participants. It is recommended that **Module 4: Situational Analysis** be referred to for further developing skills in this area.

Learning Activities and Key Points | **Leader Notes**

Discussion: "The Roles of an Extension Educator" (20 minutes)

Refer to "Elements of the Extension Education Process" in "Introduction" and "Extension Structure and Processes" in Unit I of Sourcebook.

Purpose of the Discussion:

To help participants understand how their perceptions and values affect how they perform their job and work with people in planning Extension programs.

Procedure:

1. Discuss job responsibilities of Extension agents, specialists, or administrators.

2. Discuss the skills needed for performing these jobs.

3. Discuss the qualities of an ideal Extension educator.

4. Discuss any complements or conflicts in roles and values.

The purpose of this discussion of the roles of the Extension educator is to help the participants explore the effects of their perception of the jobs they do and the skills they need as Extension agents, specialists, or administrators. This understanding is viewed in relation to how they do their jobs and how they work with people. Not only is it important to understand how their role as Extension eductor affects the learning process, but also how it affects their perceptions of programming, teaching, and learning.

The discussion of roles could be introduced in the following manner:

Emphasis in Exercises 1 and 2 was on the effects of the learner and the organization's and the learner's contexts on the learning process, while realizing that it is impossible to separate completely the interrelationships of the elements. If you have had Module 1 training, you have been exposed to experiences relating to the content of Extension education, and to the role of the Extension educator with regard to your own and Extension's values. For the purposes of Module 2, we would like to explore the element of Extension educator a little further to see how our perception of our role affects programming and the learning process. To do that, we would like to talk about what jobs you see Extension educators doing, and what skills they need to do those jobs well. Then, we will take a look at what you perceive the characteristics of an ideal Extension educator to be, and whether these characteristics complement or conflict with our actual roles.

5. Discuss how these perceptions and values affect the experiences in this workshop.

6. Discuss how these perceptions and values affect how we plan Extension programs and work with our publics.

Key Points:

1. Planning can help us to be better Extension educators.

2. Our framework for planning can help us to incorporate the ideals of a good Extension educator.

3. Our perceptions of Extension education and our values and Extension's values affect how we perform as Extension educators.

4. Being an effective Extension educator must complement the mission of Extension.

This may help us see how we affect the Extension education process.

The leader may want to use a flip chart and felt-tipped marker or a blackboard and chalk to record responses and comments. Masking tape to post the lists next to each other for comparison would be helpful, when using the flip chart. The following discussion questions can be used:

1. Let us think about our roles as Extension educators. What are some of the jobs that we can do as Extension agents, specialists, or administrators?

List the responses on the flip chart or board, while clarifying comments or encouraging participants to clarify. Some possible responses are listed under Key Points.

2. What skills do we need to do these jobs? [List as before.]

3. Now let us think about the ideal Extension educator. Some of this was discussed when we thought about our best learning experiences, so let us use that discussion and other ideas to build an image of the ideal Extension educator. How does this person work with people? What kinds of skills does this person possess and use? What does the ideal Extension educator avoid doing?

List the responses as before. You may want to ask for clarification. Occasionally, ask if everyone agrees with the statements made. After listing participants' comments, post the lists side by side and ask the following:

4. Do the ways we describe our job help us to be ideal Extension educators, or are these ways that hinder us?

Participants may have differing priorities, such as desiring more time for teaching, while committee work is perceived as taking away from this time. Participants may have similar feelings about the time that evaluation and reporting take. They also may have preferences for working with individuals or small groups, and may see reaching large audiences as reducing quality.

If conflicts are identified, ask the following:

5. How can we resolve these conflicts?

This discussion should help the participants to think about and answer the following questions:

6. How did your perception of your role as an Extension educator affect how you reacted to the slide set we viewed? Did you have positive feelings about the process? Did you have negative feelings?

7. How did your role affect what we discussed as our best learning experiences?

8. How did your role affect the kinds of expectations we shared?

The following questions should elicit some implications regarding how our perceptions and values affect our performance as Extension educators.

9. How did your perceptions of your role affect how you would design programs to help the Smiths?

10. How does your image of the ideal Extension educator relate to professionalism as an Extension educator?

Learning Activities and Key Points

Leader Notes

Discussion: "Organizational Renewal" (15 minutes)

Refer to Unit I of the Sourcebook.

Purpose of the Discussion:

To help expand participants' role as Extension educators to include their roles in organizational renewal.

Procedure:

1. Introduce the concept by discussing what happens if a program is ineffective.

The purpose of this discussion is to help the participants think about change in programs and the organization, as well as in individual learners. This "conceptual linkage" of the individual learner and change in the organization will be helpful as the participants progress through Units II through VI. This concept will be helpful because experiences in the units to follow are based on linking Extension and its publics throughout the programming process.

The following introduction and discussion questions are suggested for helping participants to explore the concept of organizational renewal.

1. We have examined the effects that the learner, educator, context, and content have on the learning process. For the next few minutes, we want to think about how these elements affect our or-

2. Discuss the concept of "change."

3. Discuss similarities or differences in the concept of organizational renewal (to the concept of change).

4. Discuss structural changes that occur through organizational renewal.

5. Relate these concepts to needs assessments and evaluation.

6. Discuss the role of Extension agents, specialists, and administrators in organizational renewal.

Key Points:

1. Extension educators are responsible for change in the organization to provide related and effective change in learners. The organization must change or become obsolete.

2. Organizational renewal is based on change in learners' behavior, their situations, and society (contexts).

3. Extension educators must become skilled in identifying learner needs and aspirations, understanding situations, and evaluating programs.

4. Extension educators must become skilled in using the results of needs assessments, situation analyses, and program evaluations to adjust or renew the structures, functions, and processes of Extension as an organization.

ganization. What happens when a program becomes ineffective?

A variety of answers are possible. Some examples are: (1) the program will be discontinued; (2) the program may continue to operate because no one has evaluated its effectiveness; or (3) the program may be evaluated and changes made. Answers "1" and "3" are examples of renewal. Answer "2" is not. After participants have given their responses, you may want to ask,

Which of these are positive changes?

Continue with:

2. The positive changes that you have mentioned, the ones that move toward a more effective organization, are forms of "organizational renewal." Let us explore the concept of change. What ideas come to mind when I say the word "change"?

You may want to list these on the flip chart or blackboard. Some possible responses are: adjustments, stressful, continually occurring, exciting, depressing, new challenges, new jobs, lost jobs, among others. You may want participants to clarify their ideas as you write them on the pad or board.

The discussion of the concept of "change" may bring up some ideas that can be used to start discussing "organizational renewal." If not, ask,

Do different or similar thoughts come to mind when you think about the concept of organizational renewal? What are some new ideas that come to mind? What are some structural changes that may occur through organizational renewal? [i.e., restructuring program ideas to interdisciplinary teams].

The next step is to help participants relate the concept of change and organizational renewal to needs assessments and evaluation of programs. If opportunities within the discussion do not arise, ask the question,

What are some examples of organizational renewal within Extension?

After some examples have been discussed, ask, *How did these changes come about? Why did they happen?*

The answers to these questions may provide opportunities to define organizational renewal in terms of needs assessments and program evaluation. Some mention of accountability may be appropriate here, or wait until Unit II to discuss.

Relate this discussion back to the roles of an Extension educator discussion by asking,

What is the role of the Extension educator in organizational renewal? Which of the roles discussed relate to organizational renewal? What additional roles are needed? What additional skills are needed?

This discussion can be summarized as follows:

Organizational renewal is positive change in an organization that makes it more efficient and effective in meeting the needs of its publics. The change may be in the programs that are provided, or in the actual structure of the organization. Organizational renewal is a result of the continual process of needs assessments and program evaluations within the Extension education process.

Learning Activities and Key Points	Leader Notes
Videotape: "A Conceptual Programming Model, Part I." (60 minutes) Refer to "An Overview of the Extension Education Process" in "Introduction" and Units I and II in the Sourcebook. **Purpose of the Videotape:** To provide a framework for applying adult education principles to the Extension education process.	"A Conceptual Programming Model, Part I" is the first in a three-part lecture by Edgar J. Boone of North Carolina State University, in which he presents the conceptual programming model that he developed and described in his book, *Developing Programs in Adult Education.* This information and the following can be used to introduce the lecture. *A Conceptual Programming Model gives a framework for applying adult education principles to our work as Extension educators. After watching the videotape, we will talk about some of the ideas presented and answer questions that you may have.* View "A Conceptual Programming Model, Part I." After watching the videotape, ask the participants if they have any questions of clarification, concerns, or

Procedure:

1. Introduce the videotape with comments on the author and his purpose.

2. Show Part I of the videotape.

3. Discuss questions that the participants may have about the model.

4. Use the questions under Leader Notes or the outline under Key Points to lead a discussion.

Key Points:

1. Overview of the model.

a. Planning,

b. Design and implementation, and

c. Evaluation and accountability.

2. Planning.

a. The organization and its renewal process:

(1). Understanding of and commitment to the functions of the organization.

- Mission,
- Philosophy, and
- Objectives.

(2). Understanding and commitment to the structure of the organization:

- Roles and
- Relationships.

comments to discuss. The following questions also can be used for discussion.

1. What is the importance of understanding the mission of Extension?

2. What is the importance of Extension's philosophy? How does it compare to your own philosophy of education?

3. What is the importance of understanding how Extension is structured and how it functions in meeting people's educational needs?

4. How are the elements of the learning process (learner, educator, context, and content) incorporated in the planning process?

(3). Knowledgeable about and skilled in the organization's processes:

- Supervision,
- Staff development, and
- Evaluation and accountability.

(4). Understanding of and commitment to a tested conceptual framework for programming.

(5). Understanding of and commitment to continuous organizational renewal.

b. Linking the organization to its publics.

(1). Study, analysis, and mapping of the organization's publics.

(2). Identifying target publics.

(3). Identifying and interfacing with leaders of target publics.

(4). Collaborative identification, assessment, and analysis of needs specific to target publics.

Unit II. Planning: Linking the Organization With Its Publics

The primary focus of Unit II is the formation and use of advisory committees. **Module 3: Developing Leadership**, **Module 4: Situational Analysis**, **Module 5: Working With Groups and Organizations**, and **Module 7: Techniques for Futures Programming** can provide additional experiences in these areas.

Overview of Unit II

The purpose of Unit II is to provide opportunities for workshop participants to understand the underlying philosophies, concepts, and tasks involved in identifying, assessing, and analyzing the needs of target publics. The concept of accountability will be introduced as a basis for involving publics in programming. Skills in identifying target publics to be involved in needs assessments also will be practiced.

Expected Outcomes of Unit II

Participants in this workshop will:

1. Be able to discuss the roles of local publics and nonlocal units in planning, and the relationship of these roles to accountability;

2. Be able to map and identify target publics;

3. Understand how to staff and use advisory groups;

4. Be able to identify needs of target publics; and

5. Understand how to analyze the needs of target publics.

Before You Begin

The materials and equipment listed next will need to be available for this unit of the workshop. It would be helpful to review the questions, Key Points, and Instructional Aids for each learning activity so that you will be familiar with them during the suggested discussions.

Materials and Equipment

Flip chart (easel and pad) or blackboard.

Felt-tipped marker or chalk.

Videotape cassette player (VHS).

Video monitor.

Exercise 3: "Linkage" (Learners' Packet)

Videotape: "Linking With Relevant Groups" (Instructional Aids)

Exercise 4: "Collaborative Identification, Assessment, and Analysis of Needs" (Learners' Packet)

"Adams County, U.S.A.—A Case Study."

Room Setup

Sufficient room to break out into groups of 3 to 7 is needed for discussion and case study groups to talk without disturbing each other. Adequate lighting, ventilation, comfortable seating and temperature, and freedom from distractions should be provided. A table and chairs for each group is desirable.

Agenda

Discussion: "Linkage and Accountability"

Introduction to "Adams County, U.S.A.—A Case Study"

Exercise 3: "Linkage"

Videotape: "Linking With Relevant Groups"

Discussion: "Concept of Needs"

Exercise 4: "Collaborative Identification, Assessment, and Analysis of Needs"

Discussion: "Linkage and Accountability" (45 minutes)

Refer to Unit II of the Sourcebook.

Purpose of the Discussion:

To help participants explore the importance of accountability in relation to linkage with Extension's publics and giving direction to programs.

Procedure:

1. Introduce the concepts of linkage and accountability.

2. Suggest debating the issue of locally controlled programming versus nonlocally controlled (state, federal, or private partners) programming.

3. Decide on teams—who will support which side of the issue.

4. Instruct teams that they have 10 minutes to prepare arguments and choose a spokesperson.

5. Explain that debate will alternate presentations and rebuttals every 3 minutes for 18 minutes total.

6. Hold debate.

7. Summarize debate by asking group questions that focus on accountability to publics, or use the ones suggested under Leader Notes.

8. Discuss the Extension education process as a way to enhance accountability.

The purpose of this discussion is to help the participants explore the relationship of the first step in linkage, that is, the mapping of Extension's publics to Extension's mission. Since legislated mission, funding bodies, and local needs all influence allocation of the Extension resources that determine programming, it is important to understand how the concept of accountability influences this relationship, and the process of identifying target publics.

It is suggested that this discussion be held as a debate. The group can be divided into two smaller groups to prepare for a debate on two supposedly opposing arguments. The issue to be debated is whether programs should be determined entirely by local groups, or if other groups, such as state and federal Extension systems, private sponsors, or others, should influence programming. It is not the purpose of this activity for one side of the debate to win. Rather, it is for participants to understand the concept of accountability and its relation to planning.

The debate can be introduced as follows:

In Unit I, we discussed concepts we need to understand about our learners, ourselves, and our organization. A process for linking these three systems was presented in a videotape. Some people believe that this linkage should occur entirely at the local level of any organization, and that local groups should have complete power over what programs should be. Others say that central units of the organization, legislative groups, and funding bodies should have power over programming. We feel that a better understanding of this issue will help you understand certain factors that influence linkage with our organization's publics.

We also thought an interesting way to do this might be through a team debate. One team will prepare a defense for total local programming; the other side will defend nonlocal programming influences. Since we need to have equal sides, does anyone have a suggestion for how to divide into two teams?

Remember that facilitators who wait a few seconds more usually get a response. If no suggestions are given, you may want to suggest dividing down the

Key Points:

1. Extension programmers are accountable to their learner groups to be effective in meeting the needs they have identified.

2. Extension programmers are accountable to funding groups for efficient and effective use of resources.

3. Extension programmers also are accountable to society on the basis of affirmative action, democratic process, and so forth.

4. Suggestions for sides of local versus nonlocal issue.

a. Local (see Forest, 1981):

- Democratic ideals,
- Adequate needs identification,
- Identification with program goals,
- Less resistance to change,
- Needs relevant to publics (real, positive change),
- Increased local leadership, and
- Local support.

b. Nonlocal (see Deshler, 1981).

- Broader, more comprehensive analysis of needs,
- Better program appraisal and design,
- Increased creativity in programming,

middle of the room or "counting off" by ones and twos. You could flip a coin to decide which side of the issue to take, or see if groups will choose. After dividing into two teams, tell the groups they will have 10 minutes to prepare for the debate. Give the following instructions:

You will need to choose a discussion leader and a spokesperson. How you do this is up to your group. It also will be helpful to have someone make a written record of your defense to refer to during the debate. After 10 minutes are up, we will flip a coin to determine which team will go first. Teams will rotate in giving defenses and rebuttals for no longer than 3 minutes at a time. At the end of three rounds (18 minutes), we will decide, as an entire group, how to settle the issue.

Ask for questions. Once everyone understands the instructions, the participants can begin their discussions. It is suggested that you listen to each group's discussion to help them develop their arguments (if they need help). Suggestions for defenses are given under the Key Points column for this experience. These suggestions also can be used during the debate.

The debate should identify a variety of groups to which Extension is accountable, but with the understanding that some groups are in support of the locally identified needs within the mission of Extension. The following discussion is suggested to help participants think about this relationship.

1. It appears that Extension has a responsibility of some type to several groups. What would be an example of a program that could be outside the scope of Extension's mission, but exists now or could possibly exist in Extension?

Risky question, so participants may need help getting started. You might add,

Even though health and nutrition are within Extension's mission, are there any types of health programs that might be outside Extension's mission?

An example might be information a doctor should provide instead of Extension.

- Attention to large-scale priorities,
- Protection of total public interests, and
- Equalization of opportunity.

2. Can you think of programs that might be provided for which there would be no need in the county?

Examples might be pushed by a small special-interest group or a "special interest" of the agent.

3. What is an example of how an Extension specialist might influence programming in such a way that he would be accountable to several groups, but not to local publics?

An example might be to promote a program because an influential donor wants exposure.

4. How could a local administrator feel that he is being accountable to funders, when no local need for a program has been identified by advisory committees?

Examples of this are to support programs for public relations reasons, for addressing large issues, or because it continues to draw an audience.

5. What kind of process should we use to increase accountability to all relevant groups?

Identify needs and issues within the scope of Extension's mission, and utilize resources relative to that need.

Learning Activities and Key Points	Leader Notes
Introduction to "Adams County, U.S.A.—A Case Study." (5 minutes) **Purpose of the Case Study**: Introduce participants to the case study method and the Adams County, U.S.A.—Case Study.	Case studies are used as learning experiences for a variety of reasons. In this Module, the Adams County, U.S.A.—Case Study was developed to: • Place the responsibility for analysis and decisionmaking with the learner; • Provide a common source of data that are adapted from a real situation; and • Provide a more realistic setting for decisionmaking with a variety of data and alternative solutions to explore.

Procedure:

1. Present reasons for using a case study and case study groups.

2. Introduce "Adams County, U.S.A." as a case adapted from an actual situation.

Key Points:

1. Case studies provide for:

- Responsibility of the learner.
- A common source of data.
- A realistic setting.

2. Case study groups provide for:

- Realistic interaction.
- A forum of exchange of ideas.
- Increased leadership skills.

It is recommended that case study groups be used to:

- Model a more realistic situation, in which more than one person is involved in decisionmaking.
- Create an awareness of differing opinions and views of the same subject; and
- Increase communication and leadership skills.

If you feel it would be helpful to your workshop participants, you may want to include this rationale in your introduction to the case study. Otherwise, the following introduction is suggested.

Part I of the videotape on programming that we viewed introduced you to the concept of linking Extension with its publics. We have just discussed accountability in relation to identifying and reporting to those publics. Now we would like to start developing some skills based on those ideas and attitudes. We believe that it would be helpful to develop the skills in group settings similar to how they would be used in reality. Since the situations in our own counties can be very different, it can be helpful if our discussions are based on similar data. For these reasons, we are using case study groups. A case study adapted from a real county situation has been developed, called "Adams County, U.S.A."

Learning Activities and Key Points

Leader Notes

Exercise 3: "Linkage" (60 minutes)

Refer to Exercise 3 (Learners' Packet) and to Unit II of the Sourcebook

Purpose of Exercise 3:

To help the participants acquire skills in mapping, identifying target publics (Part A), and identifying leaders of target publics (B).

The purpose of Exercise 3 is to give the participants experience in identifying target publics and their leaders through study, analysis, and mapping of Adams County, U.S.A. The following introduction can be given:

The first thing that a new Extension agent in the county or a new Extension specialist in the state needs to do is to get to know the people with whom he or she will work, and find out what influences their lives. In an oversimplified way, this refers to what the videotape on programming presented as "mapping." What we would like to do now is to map Adams County, U.S.A., for the purpose of linking our organization with the educational needs of Adams County publics.

Procedure:

1. Give purpose of Exercise 3.

2. Form case-study groups; refer learners to the case study and Exercise 3.

3. Inform participants that Exercise 3 will require them to explore parts of the case study with regard to a program thrust within the mission of Extension.

4. Allow the participants about 40 minutes to complete Exercise 3. Circulate among the groups so that you can help, when needed.

5. When the groups have completed Exercise 3, lead a discussion, using the questions under Leaders Notes or based on Key Points.

Key Points:

1. Identification of target publics is guided by understanding Extension's mission.

2. Extension educators need to understand the social and cultural contexts of the environment of the learners with whom they work.

3. Extension educators need to understand the goals, aspirations, and patterns of interaction between groups.

4. Leaders of target publics can be identified through approaches such as:

- Positional,
- Reputational,
- Personal influence or opinion,

Mapping is the process we use to identify our target publics and their leaders.

The first thing we need to do is to form case study groups.

The case study groups can be formed in several different ways. We suggest that the groups be no smaller than 3 participants and no larger than 7. The groups can be formed by mixing participants with different responsibilities, or forming groups of similar responsibility. Since recent trends are for interdisciplinary programming, we would suggest that mixed groups be used. Direct the participants on how to form the groups, or involve them in deciding how to form the groups. After groups are formed and positioned in comfortable locations for discussion, give directions similar to the following for Exercise 3: "Linkage."

Each of you (or each group) has a copy of the case study and of Exercise 3. This linkage exercise will require you to become familiar with data and situations described in "Adams County, U.S.A.—A Case Study." However, the instructions in Exercise 3 will direct you to focus your attention on a particular issue, problem, or concern. After analyzing the situations that relate to your focus, in the second part of Exercise 3 you will be directed to identify leadership that can help you plan, implement, and evaluate programs. You have about 40 minutes to complete Exercise 3. Then, we will discuss some of the principles and skills you experienced.

You will meet in these same groups several times during this workshop, so remember who else is in your group. It may be helpful for you to select a discussion leader, and someone to take notes. This does not have to be the same person each time. We recommend that you rotate responsibilities among the members of your group.

While the groups are discussing Exercise 3, it will be helpful to circulate among them to help clarify and stimulate thinking, if needed. After the study groups have completed the exercise, lead them in a discussion by asking the following questions or by emphasizing the Key Points and using your own questions.

- Decisionmaking, and

- Social participation.

5. These leaders can contribute to program planning through representing learner needs and supporting Extension to other publics.

1. This exercise on linkage was designed to help us explore the characteristics and forces that affect the publics with whom we work. What do you think are the most important things we need to know about our publics?

You might want to list these on the flip chart or blackboard.

2. What are some of the methods that you think are most useful for discovering these characteristics and forces?

3. How did you find the mission of Extension affecting the process you went through in this exercise?

4. Which do you consider to be the most important types of leaders to involve in Extension programming? Why?

5. What are the most important contributions being made by leaders in your county or area of responsibility?

6. Who are the publics that Extension agents, specialists, and administrators must map?

Learning Activities and Key Points

Leader Notes

Videotape: "Linking With Relevant Groups" (40 minutes)

Refer to Unit II of the Sourcebook.

Purpose of the Videotape:

To provide the participants with examples of advisory committees to help them understand their organization and use.

Procedure:

1. Introduce the videotape; state its purpose; and specify

The purpose of this videotape is to help participants to understand the use of advisory groups in the Extension education process. The videotape provides them with dramatizations of a real situation that involves Extension educators and volunteers. The following comments can be used to introduce the videotape.

We have been practicing skills in mapping Extension publics and identifying the leaders of those publics. In the videotape we are about to view, you will see how one county used those skills to organize advisory committees. The functions of these committees are to help identify and analyze needs and issues and to assist with implementing and evaluating programs. In some states, committees perform other functions, such as having administrative power over hiring and budgeting, but the committees proposed here the type of committees that will be seen.

2. Show the videotape.

3. Discuss the questions under Leader Notes or use your own, based on Key Points.

Key Points:

1. Understand the role of committees in the Extension education process.

a. System of linkage with publics.

b. Identify, assess, and analyze needs.

c. Identify and seek solutions to issues that transcend individual group boundaries and affect the welfare of the general public.

2. How to staff committees.

a. Use identified leaders of publics.

b. Rationales for using leaders:

- Leaders, by definition, are active in social issues and events.
- Knowledgeable about needs, issues, and characteristics of publics.
- Can provide access or entree to publics.
- Linkages can be created between leaders of different publics to address broad issues.

3. How to organize committees to:

are for linking the Extension education process with Extension's publics in a systematic way.

After showing the videotape, the following questions can be used for discussion.

1. What roles can advisory committee members play in the Extension education process, i.e., in planning, design and implementation, and evluation and accountability?

2. As an Extension educator, what do you see as your role in working with advisory committees?

3. Why is it important for Extension to be linked with its publics through a lay advisory system?

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a. Identify relevant issues in society.

b. Identify and rank the importance of needs.

c. Analyze specific needs.

d. Coordinate programs and interdisciplinary efforts.

4. Understand the Extension educator's role in working with committees.

a. Identify and recruit leaders.

b. Organize and advise committees.

c. Maintain relations with leaders and their publics.

d. Collect, analyze, and interpret data for local programming.

e. Assist in assessing/analyzing needs and issues for planning programs.

5. Understand Extension specialists' roles in working with committees.

a. Provide research-based information to local, area, and state committees.

b. Advise and inform Extension agents on current research and emerging issues.

c. Provide training for Extension agents in coordinating planning committees.

6. Understand administrators' roles with committees.

a. Monitor and evaluate Extension agents' and specialists' work with committees.

b. Interpret administrative policy concerning work with committees.

c. Provide support and resources and coordinate training needs of Extension agents in working with committees.

Learning Activities and Key Points

Leader Notes

Discussion: "Concept of Needs" (15 minutes)

Refer to "Needs Identification, Assessment, and Analysis" in Unit II of the Sourcebook.

Purpose of the Discussion:

To help participants understand the concept of "needs" and why needs must be analyzed.

Procedure.

1. Briefly present the function of advisory leaders in identifying needs.

2. Discuss needs as related to motivation, and ask why participants decided to become Extension educators.

3. Discuss the need to get rich as a motivation for other occupations.

4. Discuss why people participate in Extension programs.

5. Discuss the emotions behind why people participate.

6. Discuss the concept of "what ought to be" in relation to the need "gap."

The purpose of discussing the concept of needs is to help the participants explore the concept and how Extension educators can identify, assess, and analyze needs. The following discussion questions can be used to help the participants explore these concepts.

We have talked about identifying Extension's publics and their leaders. We have seen in the videotape how these leaders can be beneficial to advisory groups. Now, we would like to explore what these leaders will discuss in advisory groups and what Extension educators' roles are in those discussions. As you saw in the videotape, most of these discussions were about the needs of the learner groups that the leaders represent.

Needs are said to be the basis for motivation. Let us talk about the concept of motivation for a few minutes. Extension educators usually are described as energetic, motivated workers.

1. What motivates you to be an Extension educator?

List responses on the flip chart or blackboard. After listing the responses, ask:

2. Are these needs?

Choose one or more items on the list and discuss how the item(s) conform to the concept of needs described under Key Points.

3. I do not see in this list the need to "get rich" or make a lot of money. I thought that was why most people worked. Why are you in a line of work different from them?

7. Discuss how a need originates, and the value systems that affect needs.

8. Discuss the importance of analyzing needs to planning effective programs.

9. Discuss the concept of "issues" as a need, which is a matter of wide public concern arising out of complex human problems.

Key Points:

1. Needs arise from a feeling of inadequacy of a situational state and a desire for what ought to or could be.

2. The motivation to act or become involved is based on needs.

3. Physical, psychological, and social values differ with regard to needs.

4. Identification, assessment, and analysis of needs are important to planning effective Extension programs.

This discussion should give an opportunity to point out the importance of motivation, in that it comes from a personal or social value system that must be understood.

4. What are some reasons that people participate in Extension programs?

(List these also.)

5. What are some emotions that come to mind when you think about these reasons for being involved?

This question may encourage both negative and positive responses, such as *worry* about present condition, or anticipated *satisfaction* with the desired condition. You may have to ask,

Would you say a little more, or clarify what you mean? or When would the learner be feeling this emotion?

You will need to make two side-by-side lists of these emotions under the two headings:

"What is"	**"What ought to be"**

6. After listing the reasons given, you can point out that some researchers define a need as the gap between "what is" and "what ought to be." This can be further clarified by asking,

Which comes first, the feeling from "what is" or from "what ought to be"?

If the only response given is "what is," ask,

*Are there any situations where people discover "what ought to be" before they realize they are dissatisfied with "what is?"*or, Why do many real estate developers offer gifts if you visit a development and talk with them?

This is an advertising rather than an educational example, but gives the participants an opportunity to explore further. You can help them to see that a need can develop from a feeling of inadequacy, or can occur when a learner realizes "what could be" and decides that it "ought to be."

7. A key point of this discussion can be brought out in the following:

Suppose that an interdisciplinary program has been planned to help families in financial crises. Part of that program is a series of workshops on increasing consumer buying power. Who would you expect to attend? Why? Would you expect more male or female learners? Why?

Responses to these questions can lead to a discussion of traditions, values, and so forth. The personal values of learners can be related to needs and the feeling of "what ought to be."

8. The concept of issue can be discussed by asking,

What is the difference or relationship between issues and needs?"

Defining issues as an *extensive* need in terms of numbers affected or importance of impact can open discussion on issues as priorities.

9. This discussion of needs can be summarized as follows:

We have talked about why some people may have one need and others may have different needs. There is a large body of research on needs that helps us to understand that there are different levels of need, from physical, to emotional, to self-actualization; that people have needs relative to their age and social expectations; and other theories that help us to understand more about our learners. Personal and social values, and the situation defining those values, make understanding needs important to us as Extension educators. Determining why the need exists; how extensive the need is; and the potential consequences can help us plan programs that are effective. Analyzing these needs requires involving learners or their leaders, or both, in the planning process."

Learning Activities and Key Points	Leader Notes
Exercise 4: "Collaborative Identification, Assessment, and Analysis of Needs" (60 minutes)	The purpose of Exercise 4: "Collaborative Identification, Assessment, and Analysis of Need" is to provide the participants with *one method for identifying* and assigning priority to needs. The exercise does *not* emphasize the analysis of those needs, so you may want to emphasize analysis and diagnosis in the

Refer to Exercise 4 (Learners' Packet) and to "Needs Identification, Assessment, and Analysis" in Unit II of the Sourcebook.

Purpose of Exercise 4:

To give participants one tool for helping groups to identify needs.

Procedure:

1. Introduce Exercise 4 as a role-play of an advisory group and as a method for democratic group involvement.

2. Review Exercise 4 and clarify the directions.

3. Make sure that the participants are in their case study groups.

4. Allow participants 30 minutes to complete the exercise.

5. Lead the entire group in a discussion of the advantages, disadvantages, and further information needed for identification, assessment, and analysis of needs.

6. Summarize Exercise 4 and Unit II, emphasizing both formal and informal linkages and their importance.

Key Points:

1. The roles of the Extension educator in needs assessment are to facilitate and provide resources, such as research information, and advise on the process.

2. A group decisionmaking process should encourage total participation, sharing, openness, democratic prin-

cussion, after the exercise is completed. The Leader Notes provide suggestions for leading this discussion. Exercise 4 can be introduced as follows:

As we saw in the videotape on advisory groups, an important function of those groups is identification of the needs we have been discussing. A reliable process for involving those groups in meaningful discussion can enhance and stimulate an open, democratic atmosphere. Research on groups provides us with several methods for doing this. One method that is used frequently is the "nominal group process." For the next few minutes, we would like for you to reform your case study groups and imagine yourselves in the role of advisory committee members. As you work through this exercise, keep careful notes, because other exercises will be based on what you discuss here.

Refer to Exercise 4. Give the participants 30 minutes to complete the exercise. The following discussion questions then can be used with the entire group:

1. How did you feel about using the nominal group process? Was it easy, frustrating, or otherwise?

2. What are the advantages of the process?

3. What are the disadvantages?

4. How could you go about gathering more information about these needs?

5. What could be the role of the advisory members in gathering more information?

[Emphasize this information's use in analysis.]

6. What is the educator's role in this process?

Exercise 4 and Unit II can be summarized with the following statements.

In Unit II, we explored how Extension creates linkages with its publics, why linkage is important, and how formal systems of linkage operate. Having formal systems infers that there also are informal systems. What types of informal systems can we use in Extension?

ciples, and the use of research findings.

3. Analyzing needs is best done in a collaborative effort between the learners and the Extension educator.

Responses to this question can generate a short discussion on maintaining day-to-day contacts and relationships with learners and learner groups.

Why is it important that we continue to meet informally with leaders and learners?

This question may elicit a variety of responses, but a discussion of keeping in touch with the problems, issues, and needs of our publics can be used to summarize Unit II's major emphasis on accountable program planning being based on identified needs that are within Extension's mission.

Unit III: Designing the Planned Program

The primary focus in Unit III is on developing plans of action. The unit is designed to build on to concepts explored in Units I and II.

Overview of Unit III

The purpose of Unit III is to help participants to understand the benefits of planning programs and the essential elements of long-range planning. These elements include writing measurable objectives, translating identified needs into a hierarchy of macro objectives, and plans of action or strategies for implementing those objectives. It is suggested that the participants first be introduced to the components of measurable objectives before translating needs into objectives, so that they will be able to develop the skills separately and then combine them.

Expected Outcomes of Unit III

Participants in this workshop will:

1. Understand the benefits of long-range planning;

2. Be able to develop measurable objectives;

3. Be able to translate analyzed needs into a hierarchy of macro objectives; and

4. Be able to develop plans of action for implementing those objectives.

Before You Begin

You will need to have available the materials and equipment listed next. It can be helpful to review the videotape, the exercises, and the discussion on planned programs so that you will be familiar with the Key Points. If you are using the tutorial floppy disk "Measurable Objectives," it also can be helpful to run the program for yourself just prior to the workshop. A short lecture on "Developing Objectives" will need to be prepared. A detailed outline, with suggested introduction and summary, is provided in the Leader Notes for Unit III.

Materials and Equipment

Flip chart or blackboard.

Felt-tipped marker or chalk.

Video cassette (VHS) player.

Video monitor.

IBM PC(s), with color monitor(s) and printer(s), and copies of the tutorial floppy disk, "Measurable Objectives," or copies of *Connections.*

Exercise 5: "Translating Needs to Objectives Hierarchies" (Learners' Packet)

Exercise 6: "Designing Change Strategies" (Learners' Packet)

Copies of *Connections* (in Instructional Aids)

Transparencies 1 through 7 (Instructional Aids)

Room Setup

As for Units I and II, room is needed for participants to break out into case study groups of 3 to 7 persons. The same comfortable climate also is helpful. If you are using the tutorial floppy disk, "Measurable Objectives," you will need sufficient tables and outlets for computers and printers. It is recommended that one computer be provided for every two participants.

Agenda

Videotape: "A Conceptual Programming Model, Part II"

Discussion: "Why *Planned Programs*?"

Lecture: "Developing Objectives"

Alternatives: "Measurable Objectives" (a computer program) or "Developing Measurable Objectives" (*Connections*)

Exercise 5: "Translating Needs to Objectives Hierarchies"

Exercise 6: "Designing Change Strategies"

Videotape: "A Conceptual Programming Model, Part II" (40 minutes)

Refer to Unit III of the Sourcebook.

Purpose of the Videotape:

To provide a framework for applying nonformal and adult education principles to the design and implementation of planned Extension programs.

Procedure:

1. Introduce "A Conceptual Programming Model, Part II" with a short overview of the content (see Leader Notes or Key Points)

2. Show the videotape.

3. Lead a discussion on the roles of Extension educators and volunteers in the design and implementation subprocess.

Key Points:

1. Designing the planned program:

- Translate expressed needs into macro needs;
- Translate macro needs into macro objectives;
- Specify general educational strategies and learning activities; and
- Specify macro outcomes of the planned program.

"A Conceptual Programming Model, Part II" provides a framework for applying nonformal education principles to the design and implementation of planned Extension programs. Design is based on developing broad program objectives from the collaboratively identified, assessed, and analyzed needs of target publics. Implementation of the program design is through developing specific teaching objectives and learning experiences that are based on those program objectives. Attention in the videotape is focused on the roles of both Extension agents and specialists in the process. Part II of the videotape can be introduced as follows:

In this part of the videotape, "A Conceptual Programming Model," Boone discusses the design and implementation subprocess of the Extension education process model. In Part I of the videotape, collaborative identification, assessment, and analysis of target public needs were presented as an important part of planning. The design and implementation of programs will be presented as being based on the results of that planning process. As you watch the videotape, it can be helpful to consider the roles of the Extension agent, the Extension specialist, and the volunteers in the process.

Show "A Conceptual Programming Model, Part II." After viewing the videotape, the following questions can be used for discussion:

1. What is your role, as an Extension educator, in developing program objectives?

2. Why is it important to specify program outcomes and evaluation plans as program objectives are being developed?

3. What roles can volunteers play in the design and implementation of programs?

2. Implementing the planned program—developing plans of action.

- Translate needs into teaching objectives;
- Specify learning activities for each teaching objective; and
- Develop plans for evaluating learner outcomes and assessing learning experiences.

3. Developing and implementing strategies and techniques for marketing plans of action.

4. Developing and following through on plans to recruit and train leader-learner resources.

5. Monitoring and reinforcing the leader-learner transaction.

Learning Activities and Key Points	**Leader Notes**
Discussion: "Why *Planned Programs?*" (45 minutes) Refer to "The Planned Program" in Unit III of the Sourcebook. **Purpose of the Discussion**: To help participants explore reasons for using long-range plans. **Procedures**: 1. Introduce the subject of long-range planning.	The purpose of the discussion, "Why *Planned Programs?*" is to help participants explore some of the benefits of long-range planning. This procedure begins with an analysis of what the participants would consider an "ideal" Extension program, and how they would attain that goal. You may want to point out to the participants that learner involvement in creating a vision of Extension programs is important, even though it is an educator's vision being projected here. **Module 7: Techniques for Futures Perspective** gives more insight into this process. The discussion can be introduced as follows: *We have talked about the importance of basing our programs on learner needs, but now we turn our attention to basingplanned programs on those needs. In the videotape,the planned program is referred to as the long-range plan for focusing our educational efforts. Even though*

2. Have participants identify characteristics of the world 10 years from now.

3. Have participants describe Extension 10 years from now.

4. Discuss setting priorities for funding and a step-by-step plan to reach those goals.

5. Discuss the benefits and problems of long-range planning.

Key Points:

1. Planned programs are a response to identified, assessed, and analyzed needs that are inherent to the problems and issues facing our publics.

2. Planned programs provide a rational strategy for attaining goals.

3. Planned programs provide a basis for allocating resources.

4. Planned programs indicate what is to be evaluated to assess organizational effectiveness.

this is something we want our publics to be involved in doing, let us think about where we should be focusing our efforts.

1. Imagine that it is (give a date 10 years from present). What words or phrases would characterize the world as you envision it then?

It would be helpful to make lists of responses to this and the next five questions on the flip chart or blackboard.

2. Within Extension's mission, as you envision it, what would be ideal quality-of-life descriptors?

Encouraging clarification of responses to this question could generate more ideas.

3. To attain these ideals, what do you envision the structure, functions, and processes of the ideal Extension Service to be?

An example may be long-distance learning resources.

4. Suppose that funding would not allow all these ideals to be attained. How would you decide which ones to fund?

5. How would you decide what to do first to attain these ideals?

6. How would you be sure that efforts expended will continue to be what will actually help Extension's publics?

7. How would a planned program help or hinder reaching your goals?

This latter question should generate a list of responses similar to those listed under Key Points. If needed, you could make two columns on the flipchart or blackboard and make two response lists, one headed *Benefits of long-range planning*; the other headed *Problems in long-range planning*. After discussing the responses, a summary similar to the following could be used, if appropriate to the discussion.

Planned programs, or long-range plans, or four-year plans—however they are referred to—help to focus efforts on what our publics have helped to identify as their priorities. Extension's mission helps us to determine appropriate priorities to be addressed in our long-range plans. These *priorities give us a needs-based guide for organizing resources and, as we shall see, help us to evaluate continuously the status of our learners and the effectiveness of our organization.*

Learning Activities and Key Points

Leader Notes

Lecture: "Developing Objectives" (15 minutes)

Refer to "The Planned Program" in Unit III of the Sourcebook

Purpose of the Lecture:

To provide information participants need to practice translating analyzed needs into macro objectives.

Key Points:

1. Purpose of developing objectives [Transparency 1]

a. To be able to write measurable objectives; and

b. To be prepared for translating needs into objectives.

2. Objectives reflect [Transparency 2]

a. Mission statements that

- help target publics;
- help identify needs.

b. Current priorities:

- For resource allocation.
- To reflect changing needs.

3. Objectives relate directly to needs that are:

a. Expressed in situation statements [Transparency 3]:

The purpose of the lecture on developing objectives is to provide the participants with the information they will use in Exercise 5 to practice translating analyzed needs into macro objectives. The Key Points presented are those suggested by the USDA in developing plans of work. The groups using the tutorial floppy disk, "Measurable Objectives," will find that these Key Points are reviewed before the participants actually practice writing macro objectives. The following introduction, outlined under Key Points, and a summary are provided as suggestions.

The videotape we viewed today showed that planned programs include broad, long-range or macro objectives translated from identified, assessed, and analyzed needs and that plans of action specify teaching/learning objectives in sequential steps to accomplish and achieve long-range macro objectives. If needs are to be translated into objectives, it is important that we use objectives that are measurable and communicate projected educational solutions to those needs. For that reason, we are going to talk about and practice writing macro objectives before we try translating them from needs.

The terms objectives and goals often are used to mean the same thing. For the purposes of this discussion, the termobjective, in Extension, means specific and measurable behavioral changes expected to result from Extension programs. This is how objectives are referred to in the Cooperative Extension System Reporting Guidelines and the publication,Connections. Also inConnections is the statement that objectives are not "lists of activities, methods, events, media, etc." Rather, these are called "ways to achieve objectives." Let us examine what should be included in measurable objectives.

- Situation statement is broad.
- Objectives become more specific and operational.

b. Reflect the "learning gap" [Transparency 4]:

- Reflect what should be; and
- based in realism of "what is."

c. Use situational analysis [Transparency 5]:

- Are based on clear definition of the problem.
- Insight enhances accuracy of objective.

4. Objectives identify target publics and what*they* will accomplish through participation in our educational programs.

a. Educational objectives are [Transparency 6]:

- Learner focused and
- Collaborative in identifying desired results.

b. Management objectives (an example of another type of objective) are [Transparency 7]:

- Resource focused.
- Expectations of performance and outcomes.

5. Objectives specify level of expected change.

a. Short introduction to Bennett's Evidence Hierarchy (see "Evaluation Models," Unit V of the

[Prepare a lecture based on the outline provided under Key Points, or those of your own choosing. Overhead transparencies are provided and are indicated in the outline.]

The lecture can be summarized as follows. An alternative is to ask the participants what they feel is important about writing objectives.

If the purpose of objectives is to guide implementation and the measurement of outcomes or the results, objectives become an important part of planning. If analyzed needs are not reflected in the objectives, the results may not be relevant to Extension publics. If objectives do not reflect mission, we will not be able to account to funding bodies. If the results of situational analysis are not included in developing objectives, we may run into unexpected problems. Not stating the results in terms of the learner could promote other values. Unrealistic or unmeasurable objectives could result in failure or uncertainty about results. Objectives can be a useful and helpful tool when they reflect the intended purposes of the Extension education process. The essential element of that process is keeping the process relevant to the learners through their continual involvement.

[*Note:* See **Module 4: Situational Analysis** for in-depth information on the importance of situational analysis in developing Extension program objectives.]

Sourcebook for detailed description).

b. Content and implementation methods are related to level of change.

c. Level of change is related to the "what" and "how" of evaluation.

6. Objectives are realistic.

a. Consider resources:

- Time,
- Funds,
- Personnel, and
- Facilities.

b. Use specific terms that communicate the intended meaning.

7. Describe program results in measurable terms.

a. Program results:

- Define the program; and
- Communicate expected results.

b. Assessment criteria:

- Establish a framework for measuring; and
- Are useful for reporting and accountability.

8. Provides direction for educational strategies:

a. Type,

b. Design, and

c. Sequence.

9. Steps in writing. Determine:

a. Who receives;

b. What will be taught (content);

c. How many are expected to change;

d. Indicators of change; and

e. When changes are expected.

[*Note:* **Exercise Alternatives**]

The following two exercises are presented as alternative methods for providing activities in developing measurable objectives. It is suggested that Alternative 1, the tutorial floppy disk, "Measurable Objectives," be used if IBM PC computers, color monitors, and printers are available. If not, Alternative 2, *Connections*, pp. 26-28, contains similar information for developing measurable objectives.

Learning Activities and Key Points | **Leader Notes**

Alternative 1: "Measurable Objectives"—Computer Program (30 minutes)

Purpose of the Exercise:

To give participants practice in writing measurable objectives.

Procedure:

1. Introduce the computer program as providing practice.

2. Have the participants choose a program area for which to write an objective.

3. Have each participant develop an objective by

The purpose of the computer activity is to give each participant practice in writing measurable objectives. A maximuim of two participants per computer is preferable. Have each pair of participants sit in front of a computer. The following comments can be used to introduce the program:

We have presented some ideas about what is a measurable objective. Now we would like for you to have some practice in writing objectives. Using the tutorial computer program, "Measurable Objectives," will take you step by step through developing a measurable objective. Using this program as a guide, develop an objective for a program that is relevant to your area of responsibility or the "Adams County, U.S.A.—A Case Study." After booting up the program in the computer, it will give you directions on what to do. Each of you should develop your own objective. Then we will take a look at those objectives as a group.

working through the computer program in pairs.

4. Share the objectives with the group and have them critique the strengths and weaknesses of each objective.

5. Discuss difficulties in developing the objectives and implementing the objectives.

Key Points (from tutorial disk):

1. Powerful program objectives.

a. Are in keeping with:

- Extension's missions.
- Current state and local priorities.

b. Relate directly to:

- Need,
- Problem, and
- Opportunity.

c. Identify cleintele and what they will accomplish.

d. Specify desired levels of change.

e. Are stated in realistic terms.

f. Describe expected program results in measurable terms.

g. Provide direction for type, design, and sequence of educational strategies.

2. Measurable objectives have power to:

a. Define programs;

Give the participants about 15 minutes to develop their objectives. The following procedure can be used to lead a summary discussion.

One at a time have participants write their objective on the flip chart or blackboard. Have the group identify strengths and weaknesses (what is helpful and what is vague, unmeasurable, and so forth) about each objective. You also may want to pose the following questions:

1. What difficulties did you have in developing your objectives?

2. How can your objectives help when implementing the program?

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b. Communicate expected results;

c. Establish a framework to measure outcomes; and

d. Help collect useful reporting data.

Learning Activities and Key Points

Alternative 2: "Developing Measurable Objectives"—From *Connections* (30 minutes)

Purpose of the Exercise:

To give participants practice in writing measurable objectives.

Procedure:

1. Introduce the booklet *Connections* as having helpful instructions.

2. Have the participants choose a program area for which to develop an objective.

3. Have each participant choose a partner.

4. Have each participant develop an objective based on the suggestions in *Connections*, pp. 26-28.

5. Share the objectives with the entire group; have them critique the strengths and weaknesses of each objective.

6. Discuss difficulties in developing the objectives and implementing the objectives.

Leader Notes

The purpose of Alternative 2, "Developing Measurable Objectives," is to give each participant practice in writing measurable objectives. Distribute copies of *Connections* or copies of pp. 26-28 from *Connections* to participants. Have each participant choose someone to work with so that they can critique each other as they develop their objectives. The following comments can be used to introduce the exercise.

We have been presenting some ideas about what is a measurable objective. Now we would like for you to have some practice in writing objectives. **Connections** *is an Extension manual for developing four-year plans of work, and includes useful "how-to" information on writing measurable objectives.*

Refer participants to pages 26–28 or the copies of those pages (in Instructional Aids).

With your partner, read over what is said in **Connections** *about objectives. Then choose a program relevant to your area of responsibility or the Adams County, U.S.A.—Case Study and practice writing an objective for that program. When you finish, we will share some of these objectives with the entire group.*

Give the participants about 15 minutes to develop their objectives. The following procedure can be used to lead a summary discussion.

One at a time have participants write their objective on the flip chart or blackboard. Then, have the entire group identify strengths and weaknesses (what is helpful and what is vague, unmeasurable, and so forth) about each. You also may want to discuss the following questions.

Key Points:

1. Objectives:

- Derived from documented needs.
- Communicate.
- Guide methods selection.
- Indicate what can be measured.
- Are consistent with estimated results.

2. Determine scope, gap between:

- What is.
- What ought to be.

3. Realistic objectives:

- Central to solving problem.
- Assigned priorities.

4. Include measurable content.

- Clientele.
- Outcomes.

1. What difficulties did you have in developing your objectives?

2. How can measurable objectives help when implementing programs?

Learning Activities and Key Points

Leader Notes

Exercise 5: "Translating Needs to Objectives Hierarchies" (60 minutes)

Refer to Exercise 5 (Learners' Packet) and to Units III and IV of the Sourcebook.

Purpose of Exercise 5:

The purpose of Exercise 5 is to give participants experience in basing objectives on analyzed needs and issues and developing objectives hierarchies that can guide the sequencing of relevant learning activities. The exercise can be introduced with comments such as the following:

When practicing writing objectives, we assumed that they were based on analyzed needs or issues. In Exercise 5, we will use the case study, "Adams County, U.S.A.," to help us concentrate on the process of translating the needs that you

To give participants experience in using analyzed needs to develop macro objectives for long-range plans and objectives hierarchies for designing plans of action.

Procedure:

1. Discuss with participants an example of an objectives hierarchy.

2. Give participants an opportunity to examine Exercise 5 and ask questions.

3. Give participants 30-40 minutes to complete the exercise.

4. Discuss reactions of participants to difficulties, usefulness, and their role in developing hierarchies.

Key Points:

1. Macro needs are based on analyzed felt needs.

2. Macro needs specify the content area in which the program will be designed.

3. Macro needs are the base for constructing needs hierarchies and translated objectives hierarchies.

4. The Extension educator's skills in subject matter and educational processes are extremely important to this process.

5. Translation is based on educator/leader/learner collaboration.

have identified into objectives. Remember that you have not performed a very extensive situational analysis on these needs, so your group may want to do some more analysis as you work through the exercise.

In your case study groups, we would like for you to use a need that you identified in Exercise 4 on needs assessments. You also will be asked in Exercise 5 to develop hierarchies of needs and objectives that will help provide a program in which the learners can progress from one skill level to the next. Let us talk about that point for a minute. What skills do you need to prepare a charcoal broiled steak?

Let the participants name several skills. If they have not mentioned safety skills or consumer skills for buying meat, charcoal, or equipment, you might ask if these are also skills that are needed. Then ask participants in what logical order these skills would need to be to result in the ''perfect'' charcoal broiled steak. [This example can be used, or any fairly common skill could be substituted.] You can continue with:

This is a rather oversimplified example of sequencing a hierarchy, since the content you would be considering for a long-range plan would be more complex. But even if it is more complex, it is still just as manageable. These sequential learning activities help learners to move from their present level of proficiency to higher levels.

Have the participants form their case study groups, and then refer them to Exercise 5 and the examples provided (4 pages total). Give the participants time to read over the instructions and ask questions. Allow them about 30-40 minutes to work.

After participants have completed Exercise 5, the following discussion questions can be used to help them evaluate the experience.

1. What difficulties did you have in completing this exercise?

2. What relevance did your personal subject-matter expertise have to this experience?

3. Where would the learners in your target public enter the hierarchy?

In most cases, learners would be entering at different points, which emphasizes the need to assess learners' present abilities, and for offering a variety of experiences.

4. What is your role as an Externsion educator in developing a hierarchy of objectives?

Learning Activities and Key Points

Leader Notes

Exercise 6: "Designing Change Strategies" (30 minutes)

Refer to Exercise 6 (Learners' Packet) and to Unit III of the Sourcebook.

Purpose of Exercise 6:

To provide experience in developing broad strategies in program planning for guiding development of plans of action and implementation.

Procedure:

1. Discuss the concept of "strategy."
2. Refer group to Exercise 6 and go over the instructions with the participants.
3. Give participants 20 minutes to complete the exercise.
4. Discuss the strengths, weaknesses, and potential impacts of strategies in long-range planning.

The purpose of Exercise 6: "Designing Change Strategies," is to give participants practice in developing long-range strategies for meeting the unique sets of educational needs of target publics. Strategies are developed by building onto the data generated by case study discussions and exercises. The following comments can be used to introduce Exercise 6.

By designing a hierarchy of objectives based on learners' needs, we have a plan for taking learners from one skill or conceptual level to another. But, how do we decide what kind of learning experiences are appropriate?

[You can expect responses or use this as a rhetorical question.]

Many organizations and businesses use a process similar to educational programming called "strategic planning." As the term implies, the process results in a set of strategies for planning. In this type of situation, what would you define a strategy to be?

Most people will have a general idea of what a strategy is, but it will be helpful to emphasize the responses that describe strategies as *guiding statements for reaching goals that are based on analysis of a situation.*

Strategies for educational programs are intended for reaching the educational needs of learners, and, therefore, should be based on helping them to attain their goals. To practice developing *these types of strategies, we would like for you to work through an exercise based on what you have done, so far, in your case study groups.*

Refer to Exercise 6, and go over the questions with the participants. Give them about 20 minutes to complete the exercise. Then, help them to analyze the experience by using the following or similar discussion questions.

1. What do you consider helpful about developing strategies?

2. What weaknesses did you find in the process, or the results of the process?

3. How would you use this information for implementing programs?

4. Do you see these strategies as helpful in evaluating programs? How?

5. Do you see these strategies as helpful in procuring, developing, and utilizing resources? If so, how?

Key Points:

1. Strategies help to guide the Extension educator's decisions implementing and evaluating the planned program.

2. Strategies are based on data from a situational analysis of learner-identified needs.

3. Strategies are guides to the *way* that objectives will be achieved.

4. Strategies provide a guide for evaluating outcomes.

5. Strategies provide a broad plan that can be communicated to relevant publics.

Unit IV. Implementing the Planned Program

The primary focus of Unit IV is on the implementation of plans of action. While the concepts presented in this unit are important to the implementation of the planned program, discussed in Unit III, they can be helpful to understanding a variety of adult learning experiences.

Overview of Unit IV

The purpose of Unit IV is to help participants understand adult education principles that are useful for implementing Extension education programs with groups and individuals. Learning activities include small group exercises and total group discussion of concepts and processes. You may have different concepts, processes, or skills that you feel are useful. However, it is important that you include skills in understanding how people become involved in learning experiences; what the Extension educator's responsibility for taking learner characteristics into account includes; and the value of using a variety of methods for meeting needs.

Expected Outcomes of Unit IV

Participants in this workshop will:

1. Understand the adoption process as one model of how individuals become involved in learning and decide whether or not to change their behavior;

2. Understand motivational needs of learners and how program design can help keep learners motivated;

3. Understand learning preferences research and its application to designing learning activities;

4. Be able to select learning materials and activities according to research-based educational principles; and

5. Understand program marketing, volunteer management, monitoring, reinforcement, and feedback as important implementation concepts.

Before You Begin

You will need to have the materials and equipment listed available. A short lecture on learning preferences will need to be prepared from the suggested Key Points of this unit. Being familiar with the Key Points of discussions and exercises will strengthen your ability to help participants explore these concepts. You will need to set up the slide set prior to the workshop. It will also be helpful to test the equipment at that time to see if it is operating properly.

Materials and Equipment

Flip chart (easel and pad) or blackboard

Felt-tipped marker or chalk

Slide projector (with tape synchronization)

Cassette tape player (with slide synchronization)

Slide screen

Overhead projector

Slide set and cassette tape: "Action Strategies" (Instructional Aids)

Exercise 7: "Learning Activities Selection Criteria" (Learners' Packet)

Exercise 8: "Designing Learning Activities" (Learners' Packet)

Transparencies 8 through 18 (Instructional Aids)

Room Setup

Sufficient room to break out into groups of 3 to 7 participants and a comfortable environment are helpful.

Agenda

Discussion: ''How People Become Involved''

Discussion: ''The Adoption Process (Innovation-Decision)''

Discussion: ''Keeping Learners Motivated''

Lecture: ''Learning Preferences''

Exercise 7: ''Learning Activities Selection Criteria''

Exercise 8: ''Designing Learning Activities''

Slide set: ''Action Strategies''

Learning Activities and Key Points

Discussion: "How People Become Involved." (30 minutes)

Refer to "Plans of Action" in Unit IV of the Sourcebook.

Purpose of the Discussion:

For the participants to experience involvement in an adoption process while examining its elements.

Procedure:

1. Discuss the importance of understanding adult learner characteristics and learning processes to designing and implementing learning activities.

2. Read the four situation statements and discuss the related questions under Leader Notes.

Key Points:

1. Personalities, social context, economic conditions, and access to information are factors that affect decisions about becoming involved in learning activities.

2. These same factors, plus evaluation of the knowledge, skill, or attitude to be adopted, affect decisions about changing behaviors.

3. This is a continuing process; decisions can be reversed.

4. Extension programs must be planned in ways that will invite people to become involved; reduce risk; and

Leader Notes

In this discussion of how people become involved in learning activities, use the Adoption/Innovation-Decision process to help participants explore how people decide to become involved in learning activities and subsequently change their behavior. This process is not the only model that could be used in this discussion, but it is one that is appropriate for Extension. The discussion can be introduced as follows:

In Unit III, we explored how to involve people in long-range planning, and some of their educational needs. In Unit IV, we would like to look at how we design and implement yearly (short-term) plans of action. This procedure involves actually facilitating a learning activity, or working with volunteers who facilitate the activity. The plan of action for these learning activities needs to be much more detailed and specific than a planned program or plan of work. The plan of action needs to be specific enough to provide activities that are based on learner characteristics and flexible enough to meet a variety of needs. For these reasons, we want to examine a few types of characteristics and learning processes before we discuss how to plan for them.

The first process we would like to examine is how people become involved in learning experiences, and how they decide about changing their behavior. I am going to read to you some situation statements. Then we will discuss how you would feel or react if it happened to you.

[*Note*: In this exercise, we are using a water-quality problem to generate discussion on "adopting" or "innovation-decision" processes, This health-related issue is used because it is both personal and a community concern for many people. Read the following situation statements and then discuss the questions.]

Situation Statement I:

Suppose that it has been discovered that your community has a cancer rate 10 percent higher than the national average, and that research has correlated the incidence of certain chemicals in the majority of wells and public water systems.

Discuss:

allow practice of or "trying out" innovations. Innovations may be new to one individual, but "old stuff" to others.

1. How would this situation make you feel?

2. How would you probably have heard about the situation?

3. Would you have heard about it before or after most of the people you know? What groups in your community would be the first to know? Who would be the last to know?

4. What opinions and advice would you seek?

5. How do you think different groups in your community would react to the problem? Would there be a "typical" reaction?

6. What sources would you use for additional information?

Situation Statement II:

Some agencies have recommended that the water not be used for human or animal consumption. It will take 2 years for a water system that uses a safe source to be available to the central area of town, and another 5 to 10 years to reach all outlying areas and farming communities. The only alternatives being recommended are to purchase bottled water, or to install storage tanks for larger amounts of purchased water.

Discuss:

7. How would you have heard about the suggested solution?

8. How would you feel about the suggested solution?

9. Whose opinion would you seek? How would you feel if their opinion differed from yours?

10. What are the solution's advantages and disadvantages? What criteria would you use to evaluate pros and cons?

11. What else do you feel you need to know about the problem? Would you actively seek more information? What sources of information would you seek?

12. How could you test the solution?

13. Would you use bottled water? Why, or why not?

Situation Statement III:

Suppose it is one year later and, while chemical levels have increased, the cancer rate has gone down.

Discuss:

14. Would you have discovered this new information because you actively sought it out, or would you probably have received it in another way? If in another way, what would that way have been?

15. How would you feel now about adopting the solution proposed in Situation Statement II?

16. Would you now be satisfied with the information you have? Why, or why not?

Situation Statement IV:

Further studies have revealed that use of bottled water has increased, while municipal water consumption is down.

Discuss:

17. How would you feel about this new information?

18. What would you decide to do?

19. How would your friends react? relatives? co-workers? other significant persons in your community?

Give a short presentation of the adoption process.

Discussion:

20. How do you think people find out about Extension programs?

21. How do you think people feel about Extension programs or information?

22. What implication does the adoption process have for planning Extension programs?

Learning Activities and Key Points

Discussion: "The Adoption Process (Innovation-Decision)" (15 minutes)

Refer to "Plans of Action" in Unit IV of the Sourcebook.

Purpose of the Discussion:

To help participants explore the usefulness of behavioral change models.

Procedure:

1. Discuss the significance of "How People Become Involved," and explain that people go through steps in making decisions about change.

2. Have participants build a model for how people decide to change.

3. Compare this model to the Adoption or Innovation-Decision Model.

4. Summarize the importance of planning programs to help people make decisions.

Key Points:

1. Behavioral change models can help in designing programs.

2. These models contain the steps in personal decisions to change.

3. Adoption process steps:

a. Awareness,

b. Interest,

c. Evaluation,

Leader Notes

The primary purpose of this discussion is to introduce Rogers' (1971) Adoption or Innovation-Decision process as a model for how people decide to change behaviors. Another purpose is to help the participants explore the usefulness of conceptual models. For that reason, we suggest that the discussion begin by building a "group" model and then comparing it to the Rogers model. The following process can be used to lead the discussion. The flip chart or blackboard will be useful for listing the steps of the group model and then the Rogers model.

Think about the situation we just talked through, and similar situations. Some researchers believe that we all go through some similar mental processes when we make decisions about changing our behavior. Let us see if we can come up with steps in a process that agree with what the research shows, or if our model for change is different. What do you think has to happen first?

You will need to help the group share and clarify ideas. Some examples of questions to ask are:

Can you give me an example of that?

Does anything need to happen before this occurs?

Can you describe in more detail what happens to you at this stage?

What kinds of things might be influencing how you feel and act at this point? What would this lead you to do (or decide)?

Can someone put this in a term we can use as a step in the process?

Does anyone think that this may not always be a step, or it comes at a different time, or something is left out?

List the steps that the group decides on. Then list either the Adoption process or Innovation-Decision process next to it and compare the two. The steps of the Adoption process are elaborated in the Sourcebook. Compare any differences or similarities. The following questions might be used, if appropriate.

d. Trial, and

e. Adoption.

3. Innovation-Decision process steps.

a. Knowledge;

b. Persuasion;

c. Decision;

d. Adoption/rejection:

- Continuance/discontinuance, or
- Continuous rejection/later adoption;

e. Confirmation (of adoption).

What significant differences are there?

Would you like to add to either process? How will it be useful?

The following comments can help to summarize this discussion.

Models for how people learn or change behavior can be helpful. If we understand that people have to take certain steps to make decisions; that some people have better access to information; and, even though we have only touched on it here, that some people are more receptive to change than others, we can design programs that will provide information in appropriate ways for people to make decisions about change.

Learning Activities and Key Points

Leader Notes

Discussion: "Keeping Learners Motivated" (30 minutes)

Refer to "Plans of Action" in Unit IV of the Sourcebook.

Purpose of the Discussion:

To help participants explore motivations in learners and how to design motivating environments.

Procedure:

1. Introduce importance of positive, motivating environments for learning.

2. Discuss what participants find as motivators in their personal learning activities.

3. Discuss what participants have found to be demotivat-

The purpose of this discussion of motivation is to help participants to explore what makes a positive, motivating learning activity by relating this activity to personal experiences. The list under Key Points is based on an eclectic approach presented by Wlodkowski (1985). You may wish to mention certain motivation theorists that you would like to emphasize during this discussion. A suggested introduction, questions, and summary are provided here.

While understanding how people become involved or make decisions about change is important, it is equally important that, once people are involved, we keep them motivated. Or, as some theorists might say, that we avoid not doing things to help them lose their motivation. Think about a favorite course that you took, or the learning activity you discussed in Unit I. Tell me some things that are motivating about the activity? What did you enjoy? What helped you stay involved?

It will be helpful to list the responses on the flip chart or blackboard. It will also be helpful to ask for clarification or elaboration on points. Some "motivators" are listed under Key Points. If the dising in personal learning activities.

4. Discuss how programs can be designed with positive, motivating environments.

Key Points:

1. Motivation is intrinsic, but can be affected extrinsically.

2. Some motivators are:

- Positive, helpful attitudes;
- Opportunities to share;
- Feeling that success is attainable;
- Past successes;
- Praise;
- Enthusiasm;
- Personal control of experiences;
- Self-esteem, respect;
- Clear expectations;
- Reduced threat;
- Challenge;
- Variety;
- Group feelings (everyone feeling a part of the group);
- Value/emotion identification and sharing;
- Relating the familiar to the unfamiliar (such as talking about personal experiences related to a concept);
- Consistency (making sure that information is not contradictory of itself, or

cussion begins to drag, you may want to bring up some of these motivators and ask if participants have experienced these. If they have, ask them to describe the experience.

After the participants have listed all the positive motivators, suggest that they,

Think about a particularly bad or demotivating learning activity. What were some of the things that made you feel bad about yourself, or the course, or what you were trying to learn?

Make a separate list of these. Again, it would be helpful to encourage responses. After participants have listed all the demotivators they can, ask the following:

"What can we as Extension educators do to help create a motivating environment for our learners?"

Other suggested questions are:

What if we are working one-on-one?

What about in groups?

How can we make a newsletter motivating?

What if we have volunteers teaching? How do we create a motivating environment for the learners and for the volunteers?

How can we incorporate planning for motivation into designing plans of action?

This discussion can be summarized as follows:

It is important that we understand our learners as much as possible, so that we can plan motivating experiences and develop positive attitudes in those learners. This makes involvement of the learners important throughout the educational process.

that the educator does not model behaviors that are contradictory with the content of the learning activity);

- Attractive, orderly, organized environment; and
- Personal application to daily lives.

3. Educators need to develop motivating attitudes.

4. Educators need to plan motivating environments.

5. Volunteers may need training in keeping learners motivated.

6. Packaged materials may need built-in motivators, such as some of those already mentioned.

Learning Activities and Key Points

Leader Notes

Lecture: "Learning Preferences" (15 minutes)

Refer to "Plans of Action" in Unit IV of the Sourcebook.

Purpose of the Lecture:

To provide participants with research information on learning preferences to use in designing learning activities.

Key Points:

1. Learning preferences are preferred or capable methods for learning.

2. Learning preferences can be assessed.

3. Developmental stages are:

The purpose of this lecture on learning preferences is to provide research information that may be helpful in designing learning activities. A suggested lecture is provided, or one can be developed by using the Key Points. Or, if there are other concepts you would like to present, you may want to prepare your own lecture. [If Unit I of this Module has not been used, you may want to study the exercise on "Understanding People As Learners" to see if you want to use it along with this lecture.]

We have discussed needs assessments as a way to discover what groups want to learn, and as understanding some of the situational contexts that affect their involvement in learning situations. Extension educators also use needs assessments to determine more individual needs when they are working with groups. These individual needs are used to understand learners' prior experiences; their current levels of proficiency and capability; how they want to receive information; and how they process the information, once they receive it. These areas of inquiry have

- Related to content needs.
- Related to cognitive development.

4. Current levels:

- Proficiencies,
- Capabilities,
- Sequencing, and
- Ensuring success.

5. Ways of receiving information:

- Print,
- Aural,
- Interactive,
- Visual,
- Haptic,
- Kinesthetic, and
- Olfactory.

6. Cognitive learning styles and processes:

- Decision processes.
- Starting points differ.
- Affective considerations.

7. Summary of modes:

- Cognitive,
- Social,
- Emotional, and
- Perceptual.

been referred to as "learning preferences" and "learning styles."

What people want or need to learn is considered a learning preference. We have discussed the process of identifying, assessing, and analyzing needs of publics, but some research helps us to understand some of these needs in a more generalized way. Developmental theorists, such as Havighurst (1972), relate what people want to learn to certain stages in their lives. For instance, young adults may desire to become involved in learning activities that will establish them in adult roles, and to find marriage partners. Middle-aged adults may prefer learning activities that will either help them to be better at their present career, or to find a new one. Older adults may be looking for experiences that will help them to cope with fixed incomes; adjust to more leisure time; or maintain their health.

Developmental research suggests that the way we learn develops in a similar fashion to these life stages. While Havighurst presents the concept that successful completion of tasks in one stage leads to successful completion of the tasks of the next, researchers such as Bandura (1977) state that, as people add more successful learning activities, they are able to complete more difficult learning tasks later. These successes also may form a basis for individual learning preferences.

Building on successes is an important concept, and understanding what level of proficiency a learner has attained is important to future success. Alan Knox (1986) stresses the importance of discovering the current proficiencies of learners, while Malcolm Knowles (1980) also emphasizes understanding learners' capabilities. These researchers are saying that it is important to know what the learners can do, so you can provide experiences to help them build on that. It is equally important not to encourage or make learners "skip steps" that they need to learn, or to take them beyond their abilities. This practice can cause the feelings of failure that we talked about avoiding, in our discussion of motivation.

8. Implications for:

- Designing programs,
- Assessing preferences, and
- Training volunteers.

Let us talk about this idea for just a minute. If I said that you were now going to design a computer program for assessing learner needs, how many of you could do it without further help?

If some say they can, point out that these people already have the level of proficiency that is going to be taught to other participants. Ask,

How many could turn on the computer and boot it up?

Most of the participants probably can do this. Point out that

This is another level of proficiency that can be built on, but there are other proficiencies in operating computers and learning theory that need to be developed somewhere in between. Some learners may know more about the computer; others may know more about learning styles. Knowing these proficiencies can help us design experiences that not only will help learners to build on their own experiences, but also on others' experiences through sharing skills.

Current proficiencies present the idea of a changing level of ability. Does the concept of capability mean the same, or does it present some different ideas?

If no one thinks so, explore the concept of capability as including the idea of limits to growth. This can be exemplified as the lecture continues.

Imagine that you are paralyzed from the waist down, and you are enrolled in a sewing class. The Extension volunteer who is teaching the workshop instructs the class members to press the foot peddle with their right foot to see how it controls the sewing machine. You look down at the foot peddle on the floor. Has the instructor assessed your capabilities? Did you, as an Extension educator, help prepare the volunteer for this situation? Did you, as an Extension specialist, prepare resource materials that would be helpful? This problem of "capability" is solvable, but some problems are not. Some people have limits to both physical and mental capabilities that define their preference, like the paraplegic using *a sewing machine. There also are social and psychological contexts that may limit someone's capabilities.*

You might ask the participants if they can think of any of these, or add,

Consider how many people with dyslexia were told that they were incapable of learning. How receptive would they, or the relatives who want to protect them, have been to someone telling them they could learn? Protective parents often place unnecessary but perceived to be real limits on their children.

Just as what we refer to as "handicapped" people choose ways to learn that are comfortable, or that they are capable of using, so do so-called "normal, healthy" people. In Unit I of this Module, you explored ways that you preferred to learn new things. These preferences can occur for a number of reasons. What happens if we find that, in the past, one way of doing something brought success and another way brought failure, or at least frustration? What happens when we attempt the same thing, again? People tend to choose methods they are capable of using and have had prior success at using. Extension educators react the same way. What happens if every time you use a film projector it breaks down; there is no money in the budget for a new one; and yours is the only one available? You probably stop using films as a teaching tool. What happens if you find that lectures are difficult for you to give?

[Pause for response.]

You might stop using them. Right? Of course, this might be a good thing, in some learners' opinion. The other option is to learn to give lectures. It is also important to remember to challenge the capabilities of learners so that they can achieve everything they possibly can. For example, don't forget that the paraplegic probably can use his or her hands better than most people, and the dyslexic probably has excellent problem-solving skills.

(*Note:* Words in boxes [ ] indicate overhead transparencies; e.g., [Print].)

Other types of preferences are called "learning styles." Learning styles are the way that we receive and mentally process information. In their research, James and Galbraith (1985) divided ways that we receive information into seven elements that make up the perceptual modes through which people learn.

[Show Transparency 8]

The first element is [Print]. Print includes anything written, and is a method used by many people, and the primary method used by some. If you had bad classroom experiences, but found that you could learn things easily by reading, you might use print as a primary method.

[Show Transparency 9.]

Another mode is [Aural]. People in the aural mode prefer to learn, or learn best, through methods that involve listening. Like reading, emotional risk is reduced, but it also might be that a person has very good hearing, which he or she has found to aid concentration.

[Show Transparency 10.]

[Interactive] people prefer or learn best through talking about and discussing ideas with others. While it is somewhat obvious that being able to use all learning styles has definite advantages, many educators try to help learners add interactive methods because of its strengths in sharing experiences.

[Show Transparency 11.]

The [Visual] mode is preferred by people who like to learn through pictures, tables, films, or demonstrations. With as much television as people watch, this may be one of the most commonly used modes, but someone with poor eyesight, or lacking the ability to grasp relationships displayed graphically, may feel uncomfortable with visuals.

[Show Transparency 12.]

[Haptic] refers to learning through touch. This touch is with the fingertips. Modern-day primers

to help children learn the alphabet include three-dimensional or raised letters to help haptic children learn, and all children to develop this mode.

[Show Transparency 13.]

People who learn best through body movement are [Kinesthetic] learners. While the obvious learners here may be those who find success in athletics or the dance, how many of you are presently tapping your feet, playing with a pencil, or even find yourself crocheting at some events? Does this help or hinder your concentration? If it helps your concentration, you probably have kinesthetic tendencies.

[Show Transparency 14.]

The seventh mode is [Olfactory]. Olfactory learners learn best by associating information with a smell or a taste.

As mentioned earlier, it can be advantageous to develop flexibility in using different modes for personal learning, but it is also advantageous for educators to design learning experiences that include a variety of methods and modes. What advantages do you see this having?'' (matching methods to learning styles and helping people develop flexibility.)

[Show Transparency 15.]

There is another mode that we will touch on here, but you may want to explore further on your own. [COGNITIVE] learning styles are the way that we process the information that we receive. Researchers, such as Kolb (1984) and Witkin (1984), developed inventories that reveal information about the type of mental processes we go through to learn. What is similar about this research is that the process is an evaluation and decisionmaking process, much like the Adoption or Innovation-Decision process. The research also has revealed that people start at different points in the learning process. Some people evaluate a concrete experience; others pull different pieces together and form their own images and impressions. Some may make ''snap'' decisions; others contemplate all the alterna-

tives. Thus, the same types of influences that affect the way we receive information can affect how we process it.

We have talked about several ways or modes that reflect a person's learning style. The last one we presented is the [COGNITIVE] mode, which refers to the types of mental processes we use.

[Show Transparencies 16 through 18.]

The [SOCIAL] mode refers to the influences of the learning environment, which may be positive or negative. In Extension, the learning environment often is an entire community.

The [EMOTIONAL] mode includes factors such as self-image and attitudes that may help, hinder, or prejudice learning. Then the [PERCEPTUAL] mode refers to those ways that we receive information.

The following discussion questions can be used.

1. What importance does understanding learning styles have for designing Extension programs?

2. How can we go about determining learning styles?

3. When should we assess learning styles?

4. How should we use the assessment results?"

Learning Activities and Key Points

Leader Notes

Exercise 7: "Learning Activities Selection Criteria" (45 minutes)

Refer to Exercise 7 (Learners' Packet) and to "Plans of Action" and "Implementation Strategies" in Unit IV of the Sourcebook.

Purpose of Exercise 7:

To help participants understand the importance of having a set of criteria or a ra-

The purpose of Exercise 7 is to help the participants understand how a model for selecting learning activities can be developed and used. To be consistent, the criteria for Exercise 7 are grouped around the four elements of the Extension education process: the learner, the Extension educator, the context, and the content. (See Sourcebook, "Elements of the Extension Education Process").

There may be other criteria that you feel are important to include, such as the cost effectiveness of the experience. An alternative to using Exercise 7 is to have the participants develop their own list of criteria, as a total group, and then use the criteria in tionale for designing learning activities.

Procedure:

1. Discuss the importance of using information about learners to design learning activities.

2. Either refer partipants to Exercise 7 and have them describe criteria for each element, or have the group make and use their own list of criteria.

3. In case study groups, have the group members use Exercise 7, or their own criteria, to begin designing learning activities.

4. Discuss conflicts, implications, and involvement of learners in identifying needs.

Key Points:

1. Selection or design of learning activities should be based on criteria or rationales drawn from research in adult nonformal education.

2. The characteristics of these criteria depend on learners' needs, their situation, the type of content, the Extension educator's skills, and the resources available to both the Extension educator and the learners.

3. Looking at all the criteria can reveal better choices from alternatives.

their case study groups to prepare for designing activities.

Exercise 7 can be introduced as follows:

Understanding motivation and learning styles that are particular to the members of your target public is helpful, only if it is used to design learning activities to fit those learners' needs. Selecting or designing those learning activities often takes an understanding of how all the elements relate to each other and the activity.

For the next few minutes, we would like you to analyze an objective and the situation relevant to that objective. These criteria then will be used to select or design learning activities based on your discussion of the case study. If there are no data to answer a question, tell how you would find it, and make an assumption.

Ask the learners to form their case study groups. Call their attention to Exercise 7. You may want to go over each element with the participants to make sure they understand what they should do. Give examples and add specific criteria to each element.

Allow the participants 30 minutes to complete Exercise 7. Then, lead the total group in a discussion by using questions similar to those that follow. These questions can be used whether you use Exercise 7, or your own criteria.

1. What do you feel are the most important criteria to design or select? Why?

2. Did you discover any conflicts among your criteria? What are they? How would you solve them?

3. What additional information did you need? How would you involve the learners in identifying this information? When would you involve them?

Learning Activities and Key Notes

Leader Notes

Exercise 8: "Designing Learning Activities" (45 minutes)

The purpose of Exercise 8 is to help participants understand how the criteria developed in Exercise 7 can guide selection or design of learning activities. Then, Refer to Exercise 8 (Learners' Packet) and to "Plans of Action" and "Implementation Strategies" in Unit IV of the Sourcebook.

Purpose of Exercise 8:

To help the learners practice skills in designing learning activities based on criteria drawn from needs assessments/situational analysis of the learners.

Procedure:

1. Discuss the importance of basing the learning activity design on objectives and needs assessments.

2. Go over Exercise 8 and its supplements to clarify any questions from the participants.

3. Allow participants about 30 minutes to complete the exercise.

4. Discuss changes in criteria as a result of Exercise 8; who should establish performance standards; and the importance of designating learner outcomes.

Key Points:

1. Activity design should be based on needs assessments, situational analyses, and sound learning principles.

2. Some suggested learning principles are (Sourcebook, "Plans of Action"):

- Sequenced learning,
- Meeting motivational needs,
- Self-direction,
- Feedback,

show them how those planned activities need to be evaluated and adjusted for other learning principles. Again, Exercise 8 is suggested to help participants experience this skill. You may want to emphasize other criteria or principles, or have the participants develop their own. Exercise 8 can be introduced as follows.

With an understanding of learner characteristics and their relationship to developing objectives, learning activities can be selected or designed that will be effective. With this exercise, you will be able to practice designing appropriate learning experiences that will be effective in meeting learner needs; appropriate for content; suitable for the contexts; and will use the Extension educator's skills to their best advantage. The exercise should be based on what you have gathered from the case study.

Provided with Exercise 8 are two additional sheets that you may find helpful. Help Sheet 1 is a list of suggested activities for each of six outcome levels, according to research by Knowles (1980). Help Sheet 2 is suggested learning activities for various individual or group sizes, according to Knox's (1986) research. After referring the case study groups to Exercise 8 and the Help Sheets, go over the contents with them for clarity. Give the participants 30 minutes to complete the exercise. Then lead the entire group in a discussion by using questions similar to the following:

1. Did your criteria change any from those in Exercise 7? In what way? Did you add anything? Subtract anything?

2. Did your feelings about what was most important change or become clarified? How, or in what way?

3. Who should decide whether or not a learner's performance is adequate? What should we base standards on?"

The latter question may generate a lengthy discussion on the knowledgeable expert's role and the learner's role. It is suggested that collaboration between the Extension educator and the learner and experiences that encourage self-direction in learners are considered "Extension values," as referred to in **Module 1: Understanding Cooperative Extension**.

- Reinforcement,
- Practice, and
- Transfer of skills.

3. Learning activities need evaluation of learner outcomes planned into the design.

Learning Activities and Key Points

Slide Set: "Action Strategies" (30 minutes)

Refer to Unit IV of the Sourcebook.

Purpose of the Slide Set:

To provide participants with real examples of helpful strategies for implementing programs.

Procedure:

1. Introduce the slide set as providing helpful examples of implementation strategies.

2. Show the slide set.

3. Lead a discussion based on suggested questions under Leader Notes or Key Points.

Key Points:

1. Strategies involve:

a. Data.

b. People.

2. Marketing:

a. Place,

b. Price,

c. Product, and

d. Promotion.

Leader Notes

The purpose of this slide set on action strategies is to provide cases or comments by experienced Extension educators as examples of helpful concepts for implementing programs. The slide set can be introduced with the following comments:

We have been talking about some concepts that are important to understanding learners and designing learning activities. The slide set we are about to see provides some helpful concepts for both designing the activities and implementing them. These concepts also are particularly helpful when working with groups.

Show the slide set. Then, lead a discussion by using the following questions, or similar ones based on the Key Points:

1. Why is it important to have strageties for implementing programs?

2. What are some Extension educational products? What prices are on some of these products?

3. What are some similar skills for working with a group of volunteers that we use to teach individuals?

4. Is volunteer management an educational program? Why, or why not?

3. Resource development:

a. Using a variety of resources for effective delivery.

b. Lake Gaston case:

- Stakeholder meetings,
- Demonstrations,
- General public meetings,
- Mass media, and
- Using other agencies.

4. Monitoring:

a. In one-on-one:

- Trust building,
- Reinforcement,
- Feedback,
- Building on present level and successes, and
- Decisionmaking skills.

b. In volunteer programs:

- Orientation and training;
- Reinforcement and support;
- Feedback and realistic goals;
- Recruit, use, and share volunteer's skills;
- Give responsibility; and
- Give recognition.

Unit V. Evaluation

In Unit V, the focus is on evaluation in the Extension education process. While it is important to understand that evaluation is a continual process that is essential to improving whatever skills and methods are used by Extension educators, the emphasis in Unit V is on evaluating educational programs.

Overview of Unit V

The purpose of Unit V is to help participants understand evaluation concepts. Emphasis is on planning evaluations as an integral part of program design. Developing and using evaluation instruments would take more time than is available for this unit, and would depend on the specific program to be evaluated. Accountability is introduced as having important implications for planning evaluations, but is explored in greater depth in Unit VI.

Expected Outcomes of Unit V

Participants in this workshop will:

1. Be able to give reasons for the importance of evaluation to programming and to Extension as an organization;

2. Be able to identify a variety of sources of evidence, and their level in Bennett's Hierarchy;

3. Understand the relationship between the level of evidence and reporting to organization renewal; and

4. Be able to design an evaluation plan for a program or learning activity.

Before You Begin

You will need to have on hand the materials and equipment listed for Unit V. It will be helpful to become familiar with all discussions and exercises, but especially the discussion of evaluation principles and models. Most of the information in the second half of this discussion is in lecture form, so some preparation is necessary. If you cannot preview the videotape, an outline is provided under Key Points.

Materials and Equipment

Flip chart or blackboard.

Felt-tipped marker or chalk.

Videotape (VHS) player.

Video monitor.

Exercise 9: "Identifying the Levels of Experience—A Matching Exercise" (in Learners' Packet)

Exercise 10: "Designing Evaluations." (in Learners' Packet)

Exercise 11: "Reporting Programs." (in Learners' Packet)

Adams County, U.S.A.—A Case Study

Videotape: "A Conceptual Programming Model, Part III" (Instructional Aids)

Room Setup

Sufficient room for participants to break out into case study groups. Comfortable lighting, temperature, seating arrangements, and freedom from noise and distractions are needed.

Agenda

Videotape: "A Conceptual Programming Model, Part III"

Discussion: "Principles and Models of Evaluation"

Exercise 9: "Identifying the Levels of Evidence—A Matching Exercise"

Discussion: "Documenting Learner Changes/Sources of Evidence"

Exercise 10: "Designing Evaluations"

Exercise 11: "Reporting Programs"

Learning Activities and Key Points

Videotape: "A Conceptual Programming Model, Part III" (25 minutes)

Refer to Units V and VI of the Sourcebook.

Purpose of the Videotape:

To provide a framework for applying nonformal adult education principles to evaluating and accounting for Extension programs.

Procedure:

1. Introduce the videotape by stressing the relationship of evaluation to accountability and organizational renewal.

2. Show Part III of "A Conceptual Programming Model."

3. Discuss the Extension educator's role in evaluation and accountability.

Key Points:

1. Determining and measuring program outputs.

2. Assessing program inputs.

3. Using evaluation findings for program revisions, organization renewal, and for accounting to publics, parent organization, funding sources, the profession, and the governance body.

Leader Notes

The videotape, "A Conceptual Programming Model, Part III," provides a framework for applying adult and nonformal education principles to the process of evaluating Extension programs, and the concept of being accountable for the outcomes of those programs. Emphasis in the narrative is given to the relationship of evaluation to accountability and organizational renewal. As in Parts I and II of "A Conceptual Programming Model," the roles of Extension agents and specialists in the process are examined. The following comments can be used to introduce Part III:

In Part III of "A Conceptual Programming Model," Boone discusses the evaluation of and accountability for Extension programs as the third and final subprocess of the Extension education process. The relationship of evaluation to accountability and organizational renewal also is stressed. Again, it can be helpful here to pay attention to what your role as an Extension educator is in evaluation and accountability.

Show Part III of "A Conceptual Programming Model."

The following questions can be used for discussion.

1. What is the relationship of evaluation and accountability to organizational renewal?

2. What is your role, as an Extension educator, in evaluation and accountability?

Learning Activites and Key Points

Discussion: "Principles and Models of Evaluation" (30 minutes)

Refer to Unit V of the Sourcebook.

Purpose of the Discussion:

To help participants explore why and how Extension programs are evaluated.

Procedure:

1. Discuss the importance of evaluation.

2. Have participants identify types of information that can be generated and for whom.

3. Have participants identify purposes for generating the types of information.

4. Have participants identify the elements of effective evaluations.

5. Discuss who should conduct evaluations, and when evaluations should be conducted.

6. Present selected evaluation models for discussion.

Key Points:

1. Information examples (participants may be more specific):

a. Behavioral change,

b. Number attending,

c. Cost of program,

d. Hours involved,

Leader Notes

The purpose of this discussion of the principles and models of evaluation is to help participants explore why evaluations are important, the uses of evaluations, and some general models for guiding evaluation efforts. Since some participants may reveal frustrations about developing good evaluation skills, it will be helpful to be familiar with the Key Points and information on evaluation in the Sourcebook. The following comments and questions can be used in introducing the discussion:

1. As we saw in the videotape, evaluation is important to accountability and the renewal of Extension as an organization. Let us talk about this for a little while. What type of information can we get from evaluations?

It will be helpful to list the responses on a flip chart or blackboard, and to ask participants to clarify or give specific examples. After listing everything that you and the group want to list, ask participants to look at the list and determine:

2. For what purposes would this information be used? Who would use the information?

Some of these may have already been identified, but make a list of them now.

3. Are there any other purposes that are not listed here?

This is where you might want to add some purposes that have been missed. It might be helpful to ask participants if they think these would be helpful, and to give examples of how they could be.

4. What would you list as the elements of an effective evaluation?

Again, it may be helpful to have participants elaborate on their ideas while you list them. Then add those that you recognize as missing, and discuss them.

5. Who do you think should do evaluations?

Discuss involvement of total system, including learners.

6. When do you think evaluations should be done?

e. Favorable/unfavorable reactions,

f. Income generated,

g. Money saved, and

h. Volunteer hours involved.

2. Purposes of evaluation:

a. Improve program,

b. Improve teaching skills,

c. Accountability,

d. Funding decisions,

e. Program expansion,

f. Reporting,

g. Improve planning process,

h. Discontinue program,

i. Assess delivery,

j. Increase learner's skills (establish standards), and

k. Check match of objectives to needs.

3. Elements of some effective evaluations:

a. Clear purpose;

b. Planned use;

c. Uses credible evidence;

d. Shows change in individual or group;

e. Relates inputs to change;

f. Relates organization's structure, function, mission to effectiveness;

g. Measure objectives;

h. Evaluate unintended outcomes;

Discuss continuous need for evaluations at various stages and levels of the programming process. The discussion can now move toward models of evaluation. The discussion can be a short presentation or lecture, while encouraging participants to relate concepts to the previous discussion, and to give examples.

A suggested outline for the body of the presentation is given under Key Points, and more complete information is provided in the evaluation sections of the Sourcebook. A suggested introduction and summary follows.

Program evaluation is one of the easiest ways to see that the Extension education process is made up of a number of subprocesses. Evaluation researchers have presented various models to help understand and guide the program evaluation process.

Give lecturette on evaluation models based on suggestions under Key Points or your own prepared lecturette. The following summary and discussion questions can be used.

Each of these models includes similar elements, and some that make it distinctive from others. Models are designed for different purposes.

[The following discussion questions also could be adapted for use during the lecturette.]

1. Which of the models do you feel would be helpful to you in your work?

2. How could you use them to improve your programs?

3. What are the most helpful elements of each model?

4. What are some examples of the different indicators of Bennett's (1982) hierarchy of levels of evidence?

5. How would data on each of Bennett's levels be useful, and to whom?

[Discussion of questions 4 and 5 can provide a progression to Exercise 9.]

i. Relate outputs to inputs; and

j. Check translation of needs to objectives.

4. Evaluation models outline:

a. Countenance model (Stake, 1967)

(1). Measures antecedents:

- Existing program,
- Intents, and
- Criteria for judgment.

(2). Measures transaction:

- Planned instruction,
- Client behavior,
- Media usage, and
- Other factors.

(3). Measures outcomes.

b. CIPP model (Stufflebeam and Guba, 1967)

(1). Measures context;

(2). Measures inputs;

(3). Measures process;

(4). Measures product; and

(5). Evaluates process:

- Delineates information for decisions.
- Obtains information, and
- Provides information.

3. Discrepancy model (Provus, 1971)

a. Sets standards for performance.

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b. Seeks information to answer:

(1). Was program implemented as planned?

(2). Did program work as intended?

(3). Did program fulfill objectives?

(4). Were benefits cost effective?

4. Formative-Summative (Scriven 1967)

a. Assesses extrinsic value of goals.

b. Evaluates and adjusts program while in progress.

5. Bennett's (1982) Evidence Hierarchy.

a. Cumulative system;

b. Multilevel:

(1). Inputs-resources used;

(2). Activities provided;

(3). People involvement, participation;

(4). Reactions of participants;

(5). Knowledge, attitudes, skills, and aspirations changed;

(6). Practice change-adoption; and

(7). End results-benefits.

Learning Activities and Key Points

Exercise 9: "Identifying Levels of Evidence" (30 minutes)

Refer to Exercise 9 (Learners' Packet) and to Bennett's Evidence Hierarchy in Unit V of the Sourcebook.

Purpose of Exercise 9:

To give participants practice in identifying evidence and levels of evidence.

Procedure:

1. Discuss benefits of Bennett's Evidence Hierarchy to Extension.

2. Have participants form into case study groups and read Exercise 9.

3. Go over directions for Exercise 9.

4. Allow participants about 20 minutes to complete the exercise.

5. Discuss strengths, differences, and implications for programming.

Key Points:

1. Levels of evidence can help identify evidence.

2. Levels of evidence can help in writing objectives.

3. They can help to distinguish types of evidence so that evaluation design and reporting can match the type of evidence.

Leader Notes

The purpose of Exercise 9 is to give participants practice in identifying evidence and its level in the hierarchy. This exercise will be helpful as participants explore sources of evidence and their uses in organizational renewal and accountability. Exercise 9 is designed to be used with the case study groups, but can be used on its own, *if* directions are adapted or clarified. If used as designed, have the participants form their case study groups and review Exercise 9. The following introduction can be used:

Bennett's hierarchy of levels of evidence was developed by an Extension evaluation specialist with Extension programs in mind. Extension educators have found the hierarchy to be a useful tool for understanding and using evaluations. For the next few minutes, we would like you to practice using Bennett's Evidence Hierarchy, based on the program you designed in your case study groups.

Before searching for evidence in the case study, try to identify levels for the examples given.

Allow about 20 minutes for the groups to complete the exercise. Then, lead them in the following discussion:

1. What strengths do you see in using Bennett's Evidence Hierarchy for evaluation?

2. What difficulties do you see?

3. What relationship does the hierarchy of levels of evidence have for developing objectives? What implications does this relationship have for how objectives guide implementation, evaluation, and accountability?

Learning Activities and Key Points

Discussion: "Documenting Learner Changes/Sources of Evidence" (20 minutes)

Refer to "Source of Evidence for Extension Evaluation" in Unit V of the Sourcebook.

Purpose of the Discussion:

To help participants explore why documenting learner behavioral change is important, and some sources of evidence that change has occurred.

Procedure:

1. Discuss examples of learner behavioral change.

2. Discuss how these changes can be assessed.

3. Discuss importance of attendance, mailing list figures, and so forth.

4. Discuss sources for evidence of behavioral change.

5. Discuss how these sources can be used.

6. Discuss strengths and weaknesses of sources of evidence.

7. Discuss analysis of evidence.

8. Discuss limited resources, difficult measures, and so forth, that restrict evaluations.

9. Discuss how high a level of evidence should be

Leader Notes

The purpose of this discussion of documenting learner behavioral changes and sources of evidence is for participants to explore the importance of understanding and documenting learner changes, recording other accomplishments that may infer changes, and determining various sources of evidence that indicate change has occurred. This is exploration done by discussing learning as change, learner change as the primary accomplishments of programs, and some sources of evidence. The following introduction and discussion questions can be used:

The slide set in Unit I asked the question "How do we know that the learner has learned?" The primary purpose for evaluating Extension programs is to answer that question. Many educational materials refer to learning as "change."

1. What are some examples of changes that indicate learning?

2. How do we assess the changes? What ways can we show that change has occurred? What role do program objectives play?

3. Why is it important that we document or gather evidence about these changes?

4. What importance does documenting the numbers attending meetings or cost of materials have to documenting changes in learners?

These accomplishments may indicate that interest (attitude change) has occurred, that increased knowledge or skills is in progress; cost effectiveness of programs; bench mark data; affirmative action; and others.

5. We have talked about various levels of evidence and some behaviors or indicators of that evidence. Where can we find data or how can we collect it?

The sources listed under Key Points can help you to guide this part of the discussion. You may need to ask some questions, such as:

6. Are there any documents or resources that you have not collected personally that could help evaluated for accountability purposes.

Key Points:

1. Evidence of learner change is collected to indicate whether or not objectives/needs are being met.

2. Documentation of other accomplishments indicates efforts toward objectives, administrative responsibilities met, or may infer that change is occurring.

3. Change occurs over time, and should be indicated as a comparison.

4. Discuss accountability to target publics (identified needs).

5. Sources of evidence:

- Systematically kept records;
- Programs designed to yield evidence;
- Non-Extension data/records;
- Surveys of participants and others;
- In-depth case studies; and
- Direct observation.

[Adapted from Wright and McKenna (1985)]

indicate changes? or *How would you collect evidence from an on-farm demonstration?* [Case study]

It also will be helpful to ask questions about the strengths and weaknesses that participants feel each source may have (such as easy or difficult to collect or design).

6. Suppose that you have collected evidence that the average farm household real income figure for last year was X number of dollars. How would you use this figure? Will it help you?

Responses to question 6 can lead to a discussion of analysis of evidence and the importance of time lines, bench mark data, and before-and-after comparisons.

7. What are some restrictions to your choices for gathering evidence? [Limited funds, time, difficult measures.] What is the highest level of evidence we should evaluate to be accountable to funders?

This discussion can be summarized as follows:

When we began this unit, we talked about the purposes for evaluating. We found that evaluation is important to organizational renewal, including adjustment, and accountability. When we discussed accountability in terms of identifying target publics, we stressed the importance of programs being based on the analyzed needs of target publics. Documentation and analysis of learner behavioral changes can help us know if we are being accountable to target publics and funders, and to make adjustments if we are not.

Learning Activities and Key Points | **Leader Notes**

Exercise 10: "Designing Evaluations" (30 minutes)

The purpose of Exercise 10 is to give the participants practice in designing evaluations. Participants use the program they designed in their case study groups as the source. Have the participants form their case study groups, if they are no longer in them. The fol-

Refer to Exercise 10 (Learners' Packet) and to Unit V of the Sourcebook.

Purpose of Exercise 10:

To help participants practice designing program evaluations.

Procedure:

1. Have participants form case study groups.

2. Go over Exercise 10 and ask for questions.

3. Allow participants about 20 minutes to complete the exercise.

4. Discuss flexibility or multiple use of instruments, timing, function of objectives, and any effects evaluation design had on revising program design.

Key Points:

Practical experience in designing evaluations.

lowing comments can be used as an introduction to Exercise 10:

We have explored why we evaluate programs; what we evaluate; and some tools for evaluating. Now we would like for you to design an evaluation for your case study program. You will be asked to plan a design, but not actually develop an evaluation tool. As we have seen, a number of tools can be used, and each one requires certain skills. As you develop evaluation tools in your county, you may want to get assistance from Extension specialists who can help you. It is also important to note that evaluation tools may be questions you ask verbally.

Go over the exercise for clarity. Allow participants about 20 minutes to complete the exercise. The following discussion questions can be used for summarizing:

1. What did you decide to evaluate? How did you decide to measure it?

2. When would you have to implement your evaluation methods to obtain the data you need?

3. What is the relationship between your objectives and the evaluation design?

4. Would your evaluation design cause any changes in how you would implement your program? If so, explain.

Learning Activites and Key Points

Leader Notes

Exercise 11: "Reporting Programs" (60 minutes)

Refer to Exercise 11 (Learners' Packet) and to "Reporting Evaluation Results" in Unit V of the Sourcebook.

Purpose of Exercise 11:

Prepare for giving program reports and practice preparation.

The purpose of Exercise II is to give participants practice in reporting programs. They will use the program they designed in their case study groups as the source. The activity also will give participants an opportunity to share program ideas. If you have more than four case study groups, it is suggested that the groups be paired so that they can report to each other in Unit VI. This arrangement puts participants in the role of listeners or critics, so it may be helpful to assign or choose audience types for each presentation. Presenting groups could organize their presentations according to their audience type. This activity can be introduced as follows:

Procedure:

Refer learners to Exercise 11: "Reporting Programs," to be used as a guide in preparing their reports.

As Extension educators, you will have many opportunities to report on programs. For the next hour, we would like for you to prepare a report to be given verbally during Unit VI. This will be a 15-minute oral report, and should be organized according to the audience assigned to your group. Depending on that assignment, you could choose to give the report with one or more of the following purposes in mind: seeking funding, seeking continuation or increase in funding, or as a progress report.

Review Exercise 11, "Reporting Programs" and give participants an opportunity to ask questions. Allow them about one hour to prepare their reports. An alternative to this would be to give an extended lunch break, or give participants the option of working during the evening hours, depending on the timing of Unit VI.

Unit VI. Accountability

Unit VI is closely related to Unit V, on evaluation, since its major area of focus is accountability. However, accountability applies to the total process, as well. Additional experiences in this unit are used to bring closure to the Module 2 workshop.

Overview of Unit VI

The primary purpose of the first part of Unit VI is to help the participants explore accountability as an ethical attitude and as a set of skills. The focus is on both skills for matching types of evaluative information to audience types and giving oral reports to those audience types.

The purpose of the second half of Unit VI is to complete the modeling of the Extension philosophy of building self-directed learning skills in a democratic society. Discussion of this philosophy provides a foundation for the participants to develop their own plans for continuing to improve their skills.

Finally, Unit VI concludes with a summary discussion in which the participants will have the opportunity to reflect on what they have learned, and any concerns they may have. While this discussion can provide some evaluation information, time is also provided for a more formal, anonymous evaluation. An example is provided.

Expected Outcomes of Unit VI

Participants in this workshop will:

1. Understand reasons why accountability is important;

2. Be able to match types of evaluation information to stakeholder audiences.

3. Be able to design a report for a type of stakeholder audience; and

4. Understand the philosophy of self-directed learning in a democratic society.

Before You Begin

Becoming familiar with the discussions and exercises prior to the workshop will be helpful when participants become involved. You will need the materials listed next available. A suggested evaluation is provided, but you may want to adapt it to your own group's needs and objectives. An alternative to using participants only to listen and critique reports is to provide a panel of administrators. Careful climate setting may be needed to keep this arrangement open and nonthreatening for the new Extension agents among the participants.

Materials and Equipment

Flip chart or blackboard.

Felt-tipped marker or chalk.

Exercise 12: "Accountability to Relevant Groups" (in Learners' Packet)

"Suggested Questions for Inquiry About the Extension Education Process." (in Learners' Packet)

Exercise 13: "Evaluation of Module Experience" (in Learners' Packet)

Room Setup

As in previous sessions, a comfortable environment in which case study groups of 3 to 7 members can work without disturbing one another.

Agenda

Discussion: ''Principles of Accountability''

Exercise 12: ''Accountability to Relevant Groups''

Oral Presentations: ''Case Study Report''

Discussion: ''Self-Directed Learning in a Democratic Society''

Activity: ''Self-Directed Professional Improvement Projects''

Summary Discussion of Module

Exercise 13: ''Evaluation of Module Experiences''

Learning Activities and Key Points

Discussion: "Principles of Accountability" (30 minutes)

Refer to Unit VI of the Sourcebook.

Purpose of the Discussion:

To help particpants explore the ethics and realities of accountability.

Procedure:

1. Discuss previous topics concerning accountability.

2. Discuss whether or not total accountability is possible.

3. Discuss to whom and for what we should give priority for accountability.

4. Develop a group definition of accountability.

5. Apply the definition to whom and for what we should be accountable.

Key Points:

1. Extension is accountable to a variety of stakeholders, including target publics, Extension as an organization, funding sources, and our profession.

2. Extension is accountable for use of limited resources, and the resources' use for setting priorities in programming.

3. Extension is responsible for, among others, its mission, philosophy, functions, structure, and processes in terms of their effectiveness.

Leader Notes

The purpose of this discussion of the principles of accountability is to help participants explore the ethical reasons for accountability, and some of the resulting principles for reporting. This exploration will be conducted by asking the participants to express their feelings about accountability, and then discussing to whom Extension is accountable with what information. The following introduction and questions are suggested as a guide.

In previous discussions, we have talked about accountability as it relates to planning and, specifically, when identifying target publics. In Unit V we began to discuss reporting certain types of evaluation information to certain groups. Now we want to turn your attention toward which groups we are accountable to, and why.

1. In "Accountability: A State, a Process, or a Product," Loughlin (1975) poses a question that we would like you to explore. Should we have total accountability, meaning acountability for everything we do, and to every person in society, or should we have more (reports) and better (more accurate) accountability? What do you think?

Allow time for responses; then ask:

a. What is more important, educating the individual, or the individual's education in terms of its contributions to society?

b. How can we be accountable to society for an individual's learning? Who decides for society that the individual's learning is valuable?

2. If we cannot be totally accountable realistically, what should we be accountable for?

It may be helpful to list the responses to this question on the flip chart or blackboard.

3. Who should we be accountable to for these things?

4. Who should decide which criteria specify that we have been accountable? On what should these criteria be based?

4. Extension is accountable for achieving planned program objectives and their outcomes.

5. Extension is responsible for efficiency in the use of resources (ratio of outputs to inputs).

These questions should provoke discussion that will help Extension educators to assign priorities to their accountability efforts, and to involve the groups to whom they are accountable in setting criteria. This, along with the previous discussions on evaluation, should help to answer the following questions:

5. What elements do you think should be included in a definition of accountability?

It would be helpful to list these elements on the flip chart or blackboard.

6. Does the definition include why we should be accountable? If not, why should we?

7. Based on this definition, to whom and for what should we be accountable?

Learning Activities and Key Points | **Leader Notes**

Exercise 12: "Accountability to Relevant Groups" (30 minutes)

Refer to Exercise 12 (Learners' Packet) and to "Accountability" in Unit VI of the Sourcebook.

Purpose of Exercise 12:

To provide participants practice in determining the types of information accountability groups would require.

Procedure:

1. Discuss examples of matching types of information to group type.

2. Refer participants to Exercise 12 (and divide the participants into small groups, if desired).

3. Go over instructions; allow participants about 20

The purpose of Exercise 12 is for participants to practice skills in deciding on appropriate information to be reported to certain groups for the purposes of accountability. The participants are to determine what level of evidence would be desired by each of 17 suggested stakeholders (users of the information). Exercise 12 can be completed by individuals or by small groups. One suggestion is to have the case study groups use the results of the exercise on levels of evidence, and determine which audience would desire this information. The following comments can be used to introduce the exercise:

Extension exists because it is needed and supported by the groups to whom it is accountable. Each of these groups desires certain types of information. For example, a group that provides financial support and is interested in the publicity may desire to know how their money was spent, and how many people were reached. A group that provides financial support, but whose mission is to meet certain publics' needs, may desire higher levels of information. In this exercise, we would like you to determine what types of information each group listed would request.

Have the participants form the desired groups. Read the instructions for Exercise 12 for clarity. Allow particpants about 20 minutes to work on the exercise.

minutes to complete Exercise 12.

4. Discuss rationales for decisions and implications for programming.

Key Points:

1. Groups require information according to their mission, goals, objectives, and needs.

2. Accountability is a continuous process that should be an integral part of programming.

3. Evaluations can be planned to reflect and assist in reporting accountability.

After they have completed the exercise, the following questions can be discussed:

1. Which groups would want information from several levels of evidence? Why?

2. Which groups would desire higher levels of information? Why?

3. What are some examples of groups that would only want lower-level information?

4. What implications does this exercise have for planning evaluations?

5. What implications does it have for planning programs in general?

6. What implications does it have for accountability to ourselves and our profession?

Learning Activites and Key Points | **Leader Notes**

Oral Presentations: "Case Study Reports" (60 minutes)

Refer to "Reporting Evaluation Results" and "Accountability" in Unit VI of the Sourcebook.

Purpose of oral presentation:

To give practice in presenting reports for the purpose of accountability.

Procedure:

1. Divide participants into case study groups.

2. Instruct the listening groups that they are free to ask for clarification and more information.

The purpose of the oral presentations is to give participants practice in using reporting skills. (Participants prepared their reports during Unit V.) Have the participants reform their case study groups and give them a few minutes to prepare for giving reports. If reports are being given to the total group, have the listeners give a critique after each 15-minute report. If the groups are paired, make sure they are positioned where pairs will not disturb each other; also have them listen for what they feel is effective about each other's report. The following comments can be used to introduce Exercise 12:

This exercise not only will give you a chance to practice reporting skills, but also to share some ideas. As each group presents, the listening group is allowed to ask questions about proposed programs, expected results, evaluation procedures, or any other information that they feel is needed. Each group should take about 15 minutes to make their presentation. Then we will take about 5 minutes to discuss what was effective about each report.

The following questions can be used for a summary discussion.

3. Have particpants give presentations either in paired groupings, as described in Unit V, or give presentations to the entire group.

4. After each presentation, have the groups tell what they considered effective about each report.

Key Points:

1. Information provided should be relevant and accurate.

2. Information should be well organized.

1. What would you identify as criteria for effective reporting?

2. Does this list of criteria present any implications for planning? for developing objectives? for designing evaluations?

Learning Activities and Key Points

Leader Notes

Discussion: "Self-Directed Learning in a Democratic Society" (10 minutes)

Refer to "The Learner"; the "Introduction"; and "The Organization's Mission, Philosophy, and Objectives" in Unit I of the Sourcebook.

Purpose of the Discussion:

To set a climate for participants to develop self-directed learning contracts for their own professional improvement as Extension educators.

Procedure:

1. Discuss previous workshop experiences concerning learner involvement in the programming process.

The purposes of the discussion of self-directed learning in a democratic society are to:

1. Model and apply the philosophy of helping learners to take responsibility for their own learning;

2. Provide a framework for the participants in which to plan their own professional improvement in the area of the Extension education process; and

3. Make suggestions for further inquiry and application of the knowledge and skills that have been presented in this Module.

A further purpose of this short discussion is to help participants to explore philosophies concerning learner privileges, and responsibilities for self-improvement and personal decisionmaking. This discussion can lead to self-directed learning concepts as related not only to learners but to the workshop participants as well. This information will prepare participants for considering their own responsibilities for continued professional improvement. You might want to use the idea of rapid changes in society, learning how to learn, or a human development approach to increase adult responsibilities (Knowles, 1975). The following introductory comments and discussion questions are suggested:

2. Discuss philosophies and responsibilities of education in a free society.

3. Discuss skills that are needed to be a self-directed learner in a free society.

4. Discuss individual capabilities for self-directed learning.

Key Points:

1. Self-directed learning provides freedom of choice in personal decisions.

2. Self-directed learning requires personal skills that may need developing.

3. An Extension educator's role in facilitating self-directed learning is guidance in process and resource assistance.

We have done a lot of talking about our responsibilities for involving the learner in the Extension education process, but we have not talked very much about a similar learner involvement that was mentioned at the beginning of this workshop. One of the values projected by Extension education is to help learners to become better decisionmakers and be able to guide their own learning toward improving their quality of life. We also have discussed social contexts that affect learning situations. One context that is common to the Cooperative Extension System is that it operates in a democratic, free society. Let us explore these ideas on decisionmaking in a free society for a minute.

1. Should we have freedom of choice in our education as adults?

2. Why should we?

3. How can we have as much freedom of choice in education as possible?

4. What do you think most people feel about learning as an adult? Do you feel they can solve their own problems through learning? Why, or why not? How capable are people of designing their own learning?

5. What type of role do you see yourself having in helping people to become self-directed learners?

6. How can this concept be designed as part of Extension programs?

Learning Activities and Key Points

Leader Notes

Activity: "Self-Directed Professional Improvement Projects" (30 minutes)

Purpose of the Activity:

To help the participants to understand their responsibility for professional improvement, and to develop an im-

The purpose of this activity is to help participants identify their own learning needs as related to the Extension education process. In this activity, participants will develop personal learning contracts. It is suggested that the participants do this in pairs of their own choosing. This grouping may help to stimulate thinking and provide support. The following comments can be used as an introduction.

Just as people in a free society have to take responsibility for their own improvement, we provement plan for themselves.

Procedure:

1. Discuss responsibilities for personal professional improvement

2. Discuss the steps in self-directed learning.

3. Have participants choose partners. Refer participants to the "Help Sheets," in Exercise 12 (Learners' Packet).

4. Allow participants 30 minutes to complete.

5. Optional: Discuss implications of self-directed professional improvement for the Extension education process.

Key Points:

1. We are responsible for self-improvement as Extension educators.

2. Self-directed learning can be learned.

3. The Extension education process requires continued assessment and adjustment.

need to take responsibility for self-improvement within our profession. We have discussed a variety of skills that can help us as Extension educators. Some of these you may feel comfortable with; others may need improvement. We would hope that you would continue to improve your skills. As a guide, we are going to provide a framework, known as a learning contract, to help you plan your own self-improvement. This framework was developed by Knowles (1980) to help people become skilled at self-directed learning.

As you present the following, list the steps on the flip chart or blackboard:

In this learning contract, you are promising yourself that you will accomplish what you set out to do. The learning contract is similar to the process we have been discussing in this Module, but it is designed by an individual for himself or herself. The first step is to:

1. State a professional learning objective. You may want to evaluate your own objective like you did the ones for your case study program.

2. Decide what resources you will need to learn and how you will obtain them. Decide on an order for your plan.

3. Designate evidence that will indicate accomplishment of your objectives. And,

4. Determine your criteria or specific actions that will validate evidence.

Refer learners to "Suggested Questions for Inquiry About the Extension Education Process" (Exercise 12, Learners' Packet).

In pairs of your own choosing, we would like for you to develop plans based on these or steps of your own choosing. A list of inquiry questions on the Extension education process has been provided to help you explore your own learning needs.

Allow the participants about 30 minutes to work on the contract. After completion, you may want to discuss:

What implications does this contract have for your work as an Extension educator?

Learning Activities and Key Points | **Leader Notes**

A Summary Discussion of the Module (30 minutes)

The purpose of this summary discussion is to make sure that participants feel secure about what they have experienced in the workshop. The suggested method is to have the participants remain in pairs and come up with at least two questions about the Extension education process. These questions then can be collected and read by you or a monitor. They can be answered through discussion by the group.

Another suggestion is to have the group generate the parts of the Extension education process and list them on the flip chart or blackboard. You will want to observe closely the order in which the participants are listing the concepts.

Learning Activities and Key Points | **Leader Notes**

Exercise 13: "Evaluation of Module Experiences" (30 minutes)

Refer to Exercise 13 (Learners' Packet).

Purpose:

To help participants evaluate their learning experiences.

Procedure:

1. Refer participants to the "Evaluation of Module Experiences" form.

2. Instruct participants in how to complete the evaluation.

3. Instruct participants to write down questions and statement number for any items that they circled U, D,

The purpose of this evaluation is for accountability to the participant. It is intended for use as a self-assessment of their understanding of the basic principles presented in **Module 2: The Extension Education Process**. The evaluation is not intended to provide data for accountability to the Extension organization. Participant reaction surveys for improving leader performance or follow-up evaluations that assess application of skills could be designed on the basis of the organization's resources and needs.

This evaluation also could be given as a pretest before the workshop is held. Responses could be compared to responses to the same evaluation given as a posttest at the workshop's completion. Further description of the evaluation's use is included in the following introductory comments, which can be given before the participants start the evaluation.

This evaluation is a self-assessment with the purpose of helping you discover how much you understand about the principles we have been discussing. You will find 30 statements on the evaluation. Next to each statement is a rating scale with items SA, A, U, D, and SD. This is a

Working With Our Publics

Module 2: The Extension Education Process

Adams County USA: A Case Study

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An Overview of Adams County, U.S.A.

Adams County, U.S.A., is located in a highly agricultural area of the state. The recent census indicates that the county has a population of 63,132, with the City of Mason, the county seat, having 34,424 residents. There are six incorporated towns in Adams County: Alda (population, 192), Clearwater (920), Gold Hill (381), Matthews (1,070), Oak City (1,561), and Stoney Creek (523). (See Appendix A for a map of Adams County, U.S.A.)

Agriculture and Industry

Agriculture contributes substantially to the economy of Adams County. Corn is the principal cash crop. Other important crops are soybeans, small grain, sweet potatoes, and truck vegetables. The livestock and poultry industries also are important.

There are a number of industries in the County in addition to agriculture. Products manufactured in the County include textiles, fertilizers, petroleum, transportation equipment, wood products, metal and rubber products, agricultural implements, electrical equipment, concrete pipes and blocks, and dairy products. The industrial plants are mainly in the vicinity of Mason, and to the north of the city along U.S. Highway 514.

Resources and Land Use

Adams County's soils and topography are well suited for farming. The County recently has completed a soils mapping and classification program. The six major soil associations are Altavista, Aycock, Bibb, Cecil, Goldsboro, and Norfolk.

The County is comprised of 238,720 acres or 373 square miles. Of this area, 155,892 acres are in farms. Harvested cropland comprises 95,739 acres. The latest Census of Agriculture indicates that Adams County has 1,118 farms that average 139 acres in size. Approximately 104,000 acres of the County are forestland; 3,000 acres are in pasture; and 30,000 acres are urban or developed land, which includes water and transportation routes.

The mean temperature for Adams County is 61 °F, with an average of 224 frost-free days each year. Annual precipitation averages 46.94 inches.

Water Resources

In the past, there has been a plentiful supply of groundwater for household and farm use. However, as the population grows, Adams County sees itself facing a possible water shortage in future years. Wells with storage tanks meet the water needs of the small towns. More than 700 impounded ponds, dug ponds, and streams provide water for livestock, irrigation, and recreation. The City of Mason draws its water from four reservoirs that have a combined storage capacity of 1.25 billion gallons.

Transportation

Three U.S. highways, four state highways, one interstate highway, and numerous state-maintained roads provide access to Adams County. The County is served by two major railroads, the Central and Coastal Line and the Filmore Pioneer Line, with Amtrack passenger rail service. The County also houses the Mason Municipal Airport.

Educational, Cultural, and Recreational Facilities

The County has 22 public schools, with 12,853 students, and two private secondary schools that enroll 968 students. The Adams County Public School System comprises 11 elementary schools, 4 schools that include grades 4 through 7, 1 eighth-grade center, 3 middle schools (grades 6 through 8), and 3 high schools. Over 38 percent of the County's budget is spent on public education.

Adams County Technical Institute offers 15 associate (two-year technical) degree curriculums and 18 vocational certificate or diploma curriculums. The Technical Institute enrolled 1,402 students in the last fall quarter, and 1,421 students in the subsequent winter quarter.

Mason Private College is a liberal arts college that offers 4 degrees and 33 majors. The College has a student body of more than 1,500 and 90 full-time faculty members.

The Mason Parks and Recreation Department provides a variety of cultural programs and recreational facilities. Dramatic arts activities are popular in Mason: the city has its own "Redbird Theatre" for children and adolescents. The Recreation Department cooperates with the "Playhouse," an adult dramatics group in Mason.

Mason has 5 community centers, 3 swimming pools, 30 lighted tennis courts, fishing and boating on 3 of 4 reservoirs (fishing only on the Fourth of July), numerous playing fields that include 2 lighted regulation baseball fields, playgrounds and picnic facilities at 15 parks, and 2 courts for racquet-ball, squash, and handball. In addition, Mason owns an 18-hole golf course. [See Appendix B for demographic and other data about Adams County.]

Agricultural Profile of Adams County, U.S.A.

The gross farm sales of agricultural commodities produced in Adams County last year came to $40.6 million. The extent of major crops and livestock included: corn, 49,671 acres valued at $14.1 million; soybeans, 24,797 acres at $4.5 million; wheat, 21,271 acres at $2.9 million; swine, $8.8, million; and poultry and eggs, $4.4 million.

Major Crops

The major crops produced in Adams County are corn, soybeans, small grain, forage crops, and vegetables.

Corn

Last year 49,671 acres of corn were planted, making this the largest acreage for any single crop in Adams County. Corn offers cash income, as well as feed supply for livestock. However, with lower exports, reduced USDA programs, and a slimmer profit margin, farmers are focusing on decreasing the cost of corn production without sacrificing yield. The Grain Advisory Committee in Adams County indicated that management will be critical in the area of soil fertility, fertilization, tillage, varieties, irrigation, and disease control. The committee estimates that three-fourths of the corn producers could increase their yields by 8 bushels per acre and decrease their production costs by $20 per acre, if they implemented a management plan.

Surveys completed at recent corn-production meetings indicate that 35 percent of the corn producers do not soil test; 25 percent soil test only when they have a problem; and only 40 percent consistently soil test. Agribusinesses report that farmers have purchased more lime in the last three to four years than they have in the past. The County Extension Service has stressed the benefits of liming in this period. However, the Extension Agricultural Agent now anticipates a cutback in liming due to the low price of corn.

Twenty percent of the corn producers apply 300 to 400 pounds of 5-10-30 fertilizer per acre of corn. Soil tests on adjoining farms with the same soil types indicate that only 200 to 300 pounds per acre are needed. Because they do not soil test, corn producers often apply too much nitrogen and phosphorous.

The more profitable producers apply less nitrogen and use split applications during periods of low corn prices. These producers thereby reduce their costs some $8 to $10 per acre. Most farmers, however, continue to focus on higher yields per acre instead of maximum profit per acre during periods of low corn prices.

Last year, 39 farmers irrigated 660 acres of corn. About one-half of these producers doubled their yield from 80 to 160 bushels per acre on their irrigated land during last year's drought. Because ponds are expensive to build, few Adams County farmers irrigate; most who irrigate have access to a creek.

Farmers who irrigate need an instrument, such as a tensiometer, to measure how much water is still in the soil. They continue to experience problems in scheduling water and fertilizer applications. Few farmers time their water applications to correspond with crucial growth stages.

Soybeans

Soybean acreage in the County has increased 29 percent over the past few years, with early soybeans and late soybeans planted following small grains. Last year, 24,797 acres of soybeans produced an average yield of 25 bushels per acre, for gross sales of $4.5 millon. From one-fifth to one-fourth of the soybean crop value, however, was lost because of ineffective management practices.

Problems that continue to limit yields are weed control, low soil fertility, and insect damage. Soybean producers are not adequately planning their weed control programs to control for broadleaf weeds, such as signalgrass and Johnson grass. Surveys show that, last year, 3 out of 10 soybean fields were infested with weeds. Over 6,000 acres suffered from extensive weed infestation. In May and June, the County Extension Agricultural Agent received an average of 20 telephone calls per week that were related to the use of herbicides on soybeans.

Small Grains

Small grain acreage in Adams County has increased by 20 percent over the past 5 years. About 75 percent of the small grain acreage is doubled-cropped. The lack of consistently high yielding, early-maturing, disease-resistant grain varieties is a major problem. When present varieties are fertilized at high rates, diseases increase and quality decreases. Weed control and insects are other major problems. There are inconsistencies among growers in their fertilizer application, timing, amount, and sources. Too, farmers often fail to choose the best variety of small grains for their individual cropping systems.

Forage Crops

Much of Adams County's pastureland is in small acreage and wet lowland areas. Forage producers recognize that the lack of lime in much of this lowland pasturage is causing reduced yields. Few livestock producers use corn stubble and cover crops to carry stocker calves through the winter. There also is a shortage of summer grazing. At a recent forage crop meeting, attended by more than 100 farmers, only 10 indicated that they sprig Bermuda grass. About 75 percent of the County's livestock producers have inadequate cross fencing, which results in frequent overgrazing.

Vegetables

Vegetable production in Adams County falls into three categories: a few large sweet potato growers who plant 3,700 acres in sweet potatoes; a few large cucumber growers who plant 1,600 acres for processing; and numerous small, part-time vegetable growers who produce for a fresh market. Many of these producers do not follow recommended cultural practices related to fertility and insect and disease control. No on-farm tests have been conducted with either sweet potatoes or cucumbers.

Pest Management

Insect problems in Adams County include wireworms, bill bugs, European corn borers, and army worms. Last year, the County Extension Agricultural Agent received almost four times as many calls about wireworms as any other corn insect. All producers who called about major wireworm infestations had planted sequential crops of corn, without the recommended treatment. Fewer than 10 percent of those who called with wireworm problems had used no-till planting.

The second greatest number of calls concerned bill bugs. These callers also had followed corn with corn, without treatment. The European corn borer is a problem mainly in dry years. Last year, there was an estimated 10 percent income loss in corn due to insects. The corn crop is not part of the Integrated Pest Management Program.

Between 30 and 40 farmers, during the last drought season, harvested their corn later than the majority of corn producers. These late harvesters had losses due to aflatoxin.

In a windshield survey last spring, the Extension Agricultural Agent observed that 5 of 25 farmers were planting corn

3 weeks after the recommended time for the County. Early or on-time planting results in shorter plants, less lodging, reduced levels of insect damage, and lower moisture at harvest. Two of these same five farmers telephoned the agent later in the season to discuss major insect problems.

The Extension Agricultural Agent received from 50 to 75 calls in the spring about how to avoid problems with broadleaf signalgrass and fall panicum. Almost 25 percent of the County's corn producers do not follow up with postemergence application for broadleaf signalgrass and fall panicum. The farmers who called had not expected a problem last year; in the summer the weeds were small and barely noticeable, but by harvesttime they were knee-high. These farmers lost an estimated 10 to 12 bushels of corn per acre yield.

Many Adams County growers are too busy to scout their fields for pests and to spray when thresholds are met. Many of them do not know how to identify pests, or to determine when thresholds are reached. During a one-week period last August, the Extension Agricultural Agent received 10 calls a day about insects on soybeans. Almost 95 percent of the calls from soybean producers last year were concerned with corn earworms; almost 50 percent of the County's soybean growers in Adams County lose thousands of dollars annually by either spraying for pests too early, or neglecting to spray at all. About 50 percent of them make insecticide applications without knowing the threshold level.

Livestock

As indicated at the beginning of this agricultural profile of Adams County, swine, poultry and eggs, and beef production accounted for a considerable part of the gross farm sales of agricultural commodities produced in Adams County last year.

Swine

There are 209 swine-producing farms in Adams County, with an average of 169 head of swine per farm. The Specialized Committee on Swine has identified the need for swine producers to be more energy efficient. In addition, committee members want producers to become more aware of new innovations in swine equipment and facilities. Swine producers want to increase feed efficiency by using better equipment and genetics.

From on-site visits, the Extension Agricultural Agent found that 45 of 50 production units had too much feed in the trough and 30 of 50 had feed on the floor. He estimates that swine producers in Adams County could save over $138,000 a year by reducing feed waste and by selecting efficiency in breeding stock.

At a recent swine-production meeting in Adams County, a survey indicated that only 20 of the 75 producers present had a minimal awareness of how to select feed-efficient breeding stock. Only 15 of these same producers had a minimal awareness of new feed-efficient equipment. Most of the surveyed swine producers were not convinced that the savings from feed-efficient breeding stock and equipment would outweigh the costs. About one-half of the swine producers were not familiar with the method for selecting the correct antibiotic and the correct dosage for specific problems. Only one in five knew how to choose between similar feed additives.

Beef

Adams County contains 140 beef-producing farms. The average farm has 13 cows, with a total of 21 head. Many producers have calves born throughout the year. They do not feel they have enough cattle to justify building proper facilities and using formal management procedures.

Fewer than 25 percent of the beef producers sell cattle at the Graded Feeder and Stocker Calf Sales. To use these sales, certain production practices must be carried out. But, many Adams County beef producers do not have the handling facilities needed to follow these required practices, which include castrating, dehorning, and vaccinating. Over 25 percent of the beef producers are not castrating. They do not realize that steers would bring them an average of $40 per head more than bulls.

Poultry and Eggs

While there is less poultry production in Adams County than four years ago, there has been an increase in the number of poultry farms during the past year. Turkey integraters are looking for growers in the area, and a large broiler integrater has recently built a processing plant and feed mill in a neighboring county. With economic forecasts predicting increased consumption of poultry products, the poultry industry in Adams County is expected to expand rapidly over the next decade. Because average income for a poultry farm was about $24,000 last year, Adams County farmers who are looking for an alternative to row cropping, and many rural landowners, are interested in poultry production.

There are 85 poultry producers in Adams County. As the industry grows, litter disposal will become a problem, since a single farm may generate 25 tons of litter per year. Environmental impact plans may be required for growers. This future growth will require that dead-bird disposal will have to change, since the only rendering plant in the area is almost at full capacity. Only FHA is making guaranteed loans, and only one local bank is extending credit to perspective poultry growers.

Marketing Major Crops and Livestock

During the past eight years, grain and livestock marketing opportunities have been good enough that producers could market on the low-price cycle and make a profit. However, in the current economy, growers must have a knowledge of marketing alternatives in order to price their products at a profit. Few Adams County farmers are familiar with marketing alternatives, such as cash contracting, hedging, and limited on-farm storage. Fewer than 8 percent of the grain producers use hedging. Application of these marketing concepts could add $2 million each year to Adams County's economy.

The situation is similar for corn. A survey administered last season showed that only 20 of 100 producers used cash contracting. These farmers need to increase their use of futures and cash contracting to increase profitability.

A Farm Produce Marketing Committee in the County is concerned about the lack of marketing skills among small and low-income farmers. Less than one-half of the small-farm operators who are part-time vegetable growers use the fresh market offered by the County Extension Service.

Forestry

Commercial forests cover 104,841 acres, or 44 percent of the acreage in Adams County. In addition, 51,415 acres of land in farms are forestland.

Commercial Forestland

Commercial forestland is defined as that which produces, or is capable of producing marketable lumber or other wood products, and which is not withdrawn from timber utilization. Extension foresters have been advising commercial growers and farmland owners to plant pine instead of hardwoods on suitable sites, because quality pine timber can be produced more rapidly, in greater volume, and with greater assurance than quality hardwood timber.

Timber Species and Forest Types

Loblolly pine is the most important timber species in the County, because it grows quickly; is adapted to the local soil and climate; brings the highest average sale value per acre; and is easy to maintain. Hardwoods, however, have replaced pines on a significant amount of acreage. And, unless greater attention is given to the prompt and adequate regeneration of pine stands after harvesting, the trend from pine to hardwoods will continue.

There are five forest types in the county. Loblolly pine-shortleaf pine covers 26,700 acres. These pines make up more than 50 percent of the stand; red and white oak, gum, hickory, and yellow poplar make up the remainder of the stand. Oak-pine covers 18,034 acres. Hardwoods—upland oaks, gum, hickory, and yellow poplar—make up more than 50 percent of the stand; pines comprise 25 to 50 percent. Oak-hickory covers 43,000 acres. In these stands, upland oaks and hickory predominate. Common associates include elm, maple, yellow poplar, and black walnut. Oak gum cypress covers 13,390 acres of river bottomland. Tupelo, blackgum, sweetgum, oak, and southern bald cypress make up most of the stand. Common associates include eastern cottonwood, willow, ash, elm, hackberry, and maple. Finally, elm-ash-cottonwood covers 2,678 acres.

Forest Management on Farmland

Adams County has 155,892 acres of land in farms. Of this total area, 51,415 acres are forestland. Only 15 percent (7,812 acres) is managed under a forestry improvement plan. Landowners are not aware of the value of their woodland for timber products, as well as a renewable source of energy. They do not realize that a managed stand of southern pine should accumulate approximately 1,000 board feet of volume every 2 to 4 years, and they do not know that this growth is worth $35 to $75 per acre, annually. Return on the investment to establish a managed timber stand will yield an annual 15 to 19 percent over a 30- to 35-year period. Only one out of five landowners in the County reforests after cutting timber. More than 3 of 5 who sell timber receive 10 to 15 percent less than market price.

The 75-member Forestry Association, which meets several times during the winter months, has identified awareness of timber value as a major need for landowners, in conjunction with an understanding of options in forest management, harvesting, marketing, and reforestation.

Farm Management

The Agricultural Advisory Council identified farm management as a high priority need for the upcoming years. A survey conducted last year by the Council at several corn, soybean, and livestock meetings indicated that only 5 of the 200 farmers surveyed owned or used computers. Three other farms are on the Land-Grant University Farm Record-Keeping System. Twenty farmers had been to the County Extension office and received computations done by Extension agents on the computer; 15 of these computations were for feed rations.

The Young Farmers' Association is concerned that more farmers are not using the computer at the County Extension office. Only 8 of the 200 farmers surveyed kept enterprise budgets. All 200 kept records for income tax purposes. [Refer to Appendix C for other agricultural statistics.]

Community and Family Profile

Family Distribution and Income

The most recent census reported 16,789 families in Adams County. These families included 34,424 persons in urban areas, 25,990 in rural nonfarm areas, and 2,718 who lived on farms. The median family income is $15,779. The per capita income in Adams County is $9,239, and 2,464 families live in poverty, as defined by federal income statistics. Last year, 10,417 persons received food assistance. An average of 3,378 received monthly benefits under Aid to Families With Dependent Children. Poverty also is a problem for some elderly persons. Over 7,400 people in Adams County are 65 or older; of these, 27 percent live in poverty.

Marital Statistics

About 7.75 percent of the persons in Adams County who are aged 25 or older are separated or divorced. There were 2,313 divorces in Adams County in the last decade, which reflects a divorce rate almost double that of the prior 10 years. Currently, about 17 percent of the households are headed by a single parent.

Due to this increase in single-parent families and to greater financial demands, in general, more women are working outside of the home today than ever before. About 65 percent of the 9,013 women who have children are employed, and about 52 percent of all the women aged 16 or older hold jobs.

Housing

There are 23,500 houses in Adams County. Approximately 1,785 persons live in 558 deteriorated or dilapidated houses in the County. Another 1,920 live in substandard housing in the City of Mason. More than 1,500 Mason residents live in 1,100 units of public housing. According to the most recent census, 1,986 housing units in Adams County lack some or all plumbing facilities.

Due to higher construction costs, shrinking energy resources, and a more limited availability of land, it is expected that the average house built within the next four years will be in the size range of 1,400 to 1,500 square feet. Within the next two years, the median price of a new home in the County is expected to reach $85,000, which is expected to play a role in bringing about smaller houses.

The Adams County Extension Home Economics Agent received fewer than 10 calls last year pertaining to home repairs and renovations, which was a sharp decrease from the 25 to 30 inquiries she usually averages. At area Homemakers Club meetings, 20 of the 36 persons who attended said that they would like to carry out some major home repairs or renovations, but cannot afford to do so.

Energy Management

The last decade has brought as much as a 65 percent increase in heating bills to some Adams County homes. Energy costs now comprise 15 percent or more of the average home's annual operating expenses. Along with rising fuel costs, there is an increasing demand for energy. This increasing demand is because, despite the lower population growth rate, the number of households is increasing. There are fewer persons in each housing unit, but there are more units to consume energy.

The Mason Utility Department continues to encourage energy conservation by providing a trained energy auditor who will inspect any home for a $10 fee. This inspector recommends ways for the customer to save energy and money. It is estimated that the energy audits have resulted in savings of many thousands of dollars.

So far this year, the Adams County Department of Social Services has spent $42,000 in state and federal funds to heat the homes of the poor, and may spend twice that amount before the end of the winter. Social workers try to provide firewood or fuel oil for the poor, and have assisted about 400 people since November. At least twice that many people have difficulty obtaining heating fuel. The Department has requested that Extension Service volunteers (especially members of the Forestry Association) help to haul wood for the elderly in January and February.

Water Management

The average Adams County resident currently uses between 50 and 70 gallons of water each day. Approximately 75 percent of this water is for indoor residential use. Because of rising water costs associated with both water supply limitations and waste treatment system needs, residents are being forced to reexamine home water-use patterns.

The Mason Wastewater Management Facility, one of the 10 largest in the state, processed a daily average of 6.9 million gallons of wastewater last year, or a total of 2.5 billion gallons.

Unemployment

A recent newspaper article described Adams County's unemployment problems. "Adams County's jobless rate was 12.2 percent for December of last year. This was an increase from 11.5 percent reported for November. Out of a total work force of 32,940, some 4,390 County residents were unemployed. Adams was one of the 35 counties in the state with double-digit unemployment, with its December figure higher than that for any of the six adjoining counties."

The local Job Service manager has said that one reason for this high unemployment rate is lagging industrial production. "We still need more industries to come in," he said. "We are more flat, economywise, because of that, although some smaller industries have located here."

Unemployment is almost twice as severe among the younger than the older workers. It was estimated last year that unemployment among working-age youth (14 to 19) was between 22 and 24 percent, or close to the state average of 23.5 percent.

In the December period cited here, unemployment rates decreased in 62 of the state's counties; increased in 34 counties; and were unchanged in 4 counties.

Crime Rate

Adams is one of 13 counties in the state with more than 5,520 crimes per 100,000 population. Its crime rate index was higher than that for the state or the United States. A comparison of the crime rates in the County and the state over the past two years is shown in Table 1.

Concerns About the Family

Families in Adams County are beginning to encounter problems with energy, water, and the living environment. Problems identified include rising energy costs and consumption; decreases in energy resources; inadequate water conservation management skills; reduction in living space because of increased housing costs; and management skills that are not adequate to use available resources effectively and efficiently.

Several studies and surveys sponsored by the County Extension Service revealed related family needs. One major problem is in coping with financial difficulties brought about by high prices. There also are problems in the use of credit, choosing high-quality goods and services, preretirement planning, ways of supplementing income, legal rights of displaced homemakers, and coping with energy conservation demands.

Table 1. State and county crime rates

		Crime rate [a]		
	Year	**Violent** [b]	**Nonviolent** [c]	**Total**
Adams County	2 yr ago	3,548	436	3,984
Average	1 yr ago	3,535	406	3,759
State	2 yr ago	3,137	341	3,578
Average	1 yr ago	3,151	351	3,602

[a] Crime rate: number of offenses per 100,000 population.

[b] Violent crime rate: sum of following offenses per 100,000 population: murder, forcible rape, robbery, aggravated assault.

[c] Nonviolent crime rate: sum of following offenses per 100,000 population: burglary, larceny, motor vehicle theft.

Last year, consumer debt in Adams County increased by 4 percent; the bankruptcy rate is rising at a similar rate. Inflationary spending has led to increased purchases of cheaper (and less satisfactory) goods, particularly among younger consumers. It is estimated that about one-half of the families in the County have neither the knowledge nor the skills in home production and renovation that would provide a valuable means of extending income. Last year, the Extension Home Economics Agent received about 50 calls and 20 visits pertaining to clothing construction and furniture refinishing.

Family Stress and Structure

A survey conducted by the County Extension Service showed that residents had a number of concerns about the family structure. Among the problems they cited were family stress; the pressures of juggling job and home responsibilities; custody questions following divorce; child abuse; teenage pregnancy; lack of communication in marriage; the need for more services for the elderly; and loneliness and fear among the elderly widowed. The survey respondents also cited the need for family and community support to cope with rearing children under nontraditional circumstances. These respondents represented single-parent families, step-families, and adopted families.

Family Health Practices

A recent survey showed that many Adams County families are postponing medical and dental care and cutting back on the quality of food served in the home in an effort to cope with inflation. Cardiovascular disease, hypertension, stroke, diabetes, and obesity continue to increase among the residents. Of the 580 deaths last year, about 56 percent were heart-related.

Cardiovascular diseases are among the many associated with poor diet. Statewide nutritional surveys show the diets of many Adams County residents are inadequate. Two groups are of particular concern. One group is teenagers; and the other is lower-income persons of all ages. In families with limited incomes, 50 percent or more of the wage-earner's salary may be spent on food. Low-income lifestyles, in general, carry the potential for poor diet, high risk of illness, and limited access to information or education that could improve preventive health care.

Problems and Needs Among Youth

Precocious sexual activity is not the only problem identified among the young people of Adams County. Last year, the Families in Action coalition conducted a drug-use prevalence survey among eighth through twelfth-graders in the County (see Appendix E). The results indicated that 53 percent use beer or wine; 36 percent use liquor; 22 percent use marijuana; and 9 percent use other drugs. Students reported that they generally used these substances with their peers, and that their peers often encourage that use.

The same survey showed that teenagers had difficulties communicating with their parents. Only 43 percent of the respondents said that they talked a lot with their parents; 8 percent reported that they seldom or never talked with the adults in their families.

Teenage pregnancy is a concern in Adams County. Two years ago, there were 370 pregnancies among females in the 10 to 19 age category; of these pregnancies, 306 were out of wedlock. Over one-half (167) of the out-of-wedlock pregnancies among teenagers were in the City of Mason. Adams County had the highest rate in the state for pregnancies among women aged 15 to 17: 175 pregnancies, or 24.5 per 1,000. Adams County also holds second place in the state for number of reported syphilis cases. Over the past 12 months, 81 cases of syphilis and 565 cases of gonorrhea were recorded.

The following excerpts from articles in local newspapers reflect the community's concern about teenage drinking behavior.

A member of Families in Action was quoted as saying, "I think the parents need to be more aware of their drinking habits. We can't ask them [teens] not to do something we do. They [some parents] have so much alcohol on their breath that they would never know what their children were drinking. It just seems to me that, it you love them enough, you could give up drinking."

A social worker at the Adams County Mental Health Department: "The students I talk to say it's [alcohol] very easy to obtain. Older friends often supply the alcohol, and many stores continue to sell the beverage without checking identification [even after the new DWI law]."

Adams County Sheriff: "Most teens obtain alcohol through older friends, brothers and sisters, although an adult bought one keg of beer for one party for teenagers last year."

Mason City Police Chief: "I would say the vast majority of alcohol comes from the home. It's readily available and it's much easier and safer to get at home. Parents often condone drinking, in a practical sense, because they keep alcohol in their homes and do not act when their children drink it."

Social worker: "Many parents feel guilty about a double standard for drinking."

Another newspaper clipping reads as follows:

Students Organize to Oppose
Drunken Driving

More than 100 of Glen High School's 1,350 students recently attended SADD's organizational meeting [SADD—Students Against Driving Drunk]. King High School may form a chapter soon. Robert Keyes High School does not plan to form a separate club, but its Student Council will spread information about SADD though homerooms and clubs. "The students like the idea that it's our organization," said Junior John Boyette, who is co-leader of the group at Glen High. Adults have offered to join the effort. The Civitan Club has pledged its support to SADD, whether it be financial assistance, moral support, or serving as advisors.

Developments and Controversies in Adams County

Schools

One item reflects a change, rather than a controversy, in the Adams County schools. Recently the Adams County School System purchased 155 microcomputers. These microcomputers provide one terminal per 82 students in Adams County; more than double the rate of one terminal for every 192 students, which is the state average. The School System stresses computer awareness at the elementary grade level, computer literacy in the middle grades, and programming in the high schools. Computer workshops are popular among Adams County teachers, about 300 of whom have been exposed to some degree of computer training.

However, all public school resources are not so abundant. Two new middle schools are needed. There are now eight middle schools, one of which is handling an overflow of students in trailer units. Another middle school is badly dilapidated. The County has two high schools that are only two years old, but no new middle schools. About 350 to 400 middle-school students must be relocated to relieve crowding in existing facilities. Parents have brought this problem to the attention of the Board of Education. Also, a one-half cent sales tax was approved in a recent referendum. Over the next five years, a specified portion of the County's share of this revenue must go toward school capital improvements. There are new elementary schools in west Mason and east Mason. Citizens in north and south Mason feel strongly that the new middle school should be in their area.

Land-Use Controversy

The changing pattern of land use is by far the touchiest issue in Adams County. A recent trend has been the conversion of prime farmland to urban and industrial uses. The loss of prime farmland puts pressure on marginal lands, which generally are wet, more erodible, droughty, or difficult to cultivate, and less productive than the prime farmland.

The acreage in crops and pastures has changed dramatically. Land is being converted to nonfarm use at the rate of one farm every three months. Over the past dozen years, more than 7,000 acres of farmland have been converted to nonfarm use.

Farmers are gravely concerned about industries moving into the County and buying up the best farmland. Businessmen want new industry to locate along the interstate highway near Mason. Such development not only would create new industrial jobs and help to alleviate the unemployment discussed elsewhere, but also would boost the economy by attracting motels, restaurants, and outlet stores. Mason is now pursuing a grant to purchase 200 acres of prime farmland near east Mason. The Adams County Industrial Council bought over 1,000 acres of good farmland some 20 years ago. About 300 acres are still available for new industry in the Adams County Industrial Park.

Water Sewer System Issue

The County Commissioners are promoting a countywide water-sewer system. The farmers are opposed. They want to protect their farmland, and know that if water-sewer lines run by their land, they would be under a great deal of pressure to sell to any interested industry.

On the other hand, the subdivisions springing up outside the city limits of Mason want access to services. Creating too many subdivisions with individual wells and septic tanks runs the risk of oversaturating the ground and polluting the groundwater supply. The industrial developers, realtors, and Chamber of Commerce members favor a countywide water-sewer system.

Property Tax Revaluation

Farmers feel that the proposed water-sewer system would increase their property taxes yet again. They are upset about the property revaluation that took place this year, which resulted in tax increases. The farmers insist that their land is now valued higher than its market value. The following comments were excerpted from newspaper reports.

"There isn't a single farm," Joe Stevens, local agribusinessman said, "that would sell close to the new values." He said he has talked to some 100 people about the matter, and he found a great deal of agreement with his point of view.

"Some of these evaluations have doubled or tripled since the last time," said Stevens. "I know of a farm in the County that sold for $75,000 one year ago, but which now has a tax value of $125,000."

"The land has just been valued too high," said local farmer Bob Jenkins, owner of several farms. He said valuation on two of his farms increased 600 percent over last year's level, while that of another increased by 300 percent. "Some farmers could not sell now for half of what they would have gotten three years ago," he added.

If farmers cannot get "use value" tax breaks on their farms, said Jenkins, they may have to sell out because of taxes. He added that the valuators, Associate Surveys, based the new values on just a few farms that had sold at exorbitant rates.

The following remarks are from another newspaper article:

"According to the accepted schedule of values, the highest-valued open and pastureland is valued at $1,800 per acre, and the lowest at $900 per acre. Highest-valued woodland is valued at $500 per acre, and the lowest at $250. Highest-valued rural homesites are valued at $8,000 per acre; the lowest at $2,000."

Roberts, a County Commissioner, cited an example of a recent farm sale in the County, in which he said the highest bids for 10 tracts of land fell far short of evaluation levels. The highest appraised tract on the farm was valued by Associate Surveys at $242,900, with a use value (value for farming purposes only) of $138,500. Yet, the highest bid for the tract came to only $97,500. Another tract was assessed at $44,500, with a use value of $27,660. The highest bid for this tract was only $17,000.

Roberts maintains that a countrywide water-sewer system would make this situation even worse. It would increase property taxes on farmlands, especially those adjoining the water-sewer lines. Again, he said, when land is rezoned, the zone is often based on the "highest and best use," which favors business and industrial use. (Five of the seven County Commissioners own farms.)

Support for Public Services

There is some discussion and difference in viewpoints among city and county officials who are considering some central services, such as law enforcement, recreation, and libraries. Rural residents can now enroll in any program offered by the city recreation centers, but the County contributes nothing to the support of these facilities. The same holds true for city library services. There are limited cost-sharing arrangements in some other areas for recreation, library, and waste-disposal services.

Mason city officials also want the County to contribute to the operation costs of the municipal airport (which is located in Adams County). The County receives tax revenues generated by airport activities, but contributes nothing to its operation.

Mason recently was forced to increase its expenditures for airport improvement from $5,000 to $25,000 a year. In addition, any profits from the airport that accrue to Mason are used to operate the airport. The city pays for all airport operation. Flying instruction is offered to the public on a ''for-fee'' basis. [Refer to Appendix E for more community development data.]

Cooperative Extension in Adams County

Extension Staff

The Cooperative Extension staff in Adams County includes one Agricultural Agent, one Home Economics Agent, and one agent who is responsible for both 4-H and Community and Rural Development. The Home Economics Agent also serves as County Extension administrator, allocating 25 percent of her time to administrative duties. This staff is supported by two secretaries.

Agricultural Programs

Much of the County Extension Service's activity in agriculture was noted earlier in the descriptions of various surveys reported under the "Adams County Agricultural Profile." A number of committees have been established to review the findings of these surveys, as well as other data, and to recommend priorities for the County. These include committees for each of the major commodities produced in Adams County. Several programs of particular interest are described here in more detail.

Irrigation Demonstrations

Four on-farm demonstrations using high-yield irrigation procedures were conducted this year, and some tests were done with the tensiometer. The Grain Advisory Committee has requested that on-farm high-yield irrigation tests be carried out in the coming year.

In-Row Ripping

Four years ago the Adams County Extension Service conducted its first on-farm test dealing with ripping and bedding corn soils in a Norfolk sandy loam soil. The findings indicated that there could be a response to in-row subsoiling. During the past three years, on-farm demonstrations consistently have yielded 15 to 18 bushel increases with in-row ripping. About 25 percent of the County's corn producers now use this practice, and have added an average of 15 bushels per acre to their yields. The additional gross income generated has been approximately $567,000.

Last autumn, 51 farmers took part in an Adams County crops tour, which included a visit to the on-farm test of in-row corn ripping. Following this tour, 230 additional farmers heard of the practice's results at corn-production meetings. In the ensuing winter months, the Extension Agricultural Agent received 50 to 75 telephone calls from farmers concerning the proper equipment and techniques for in-row ripping.

Meat Animal Show and Sale

The Adams County Meat Animal Show and Sale is a community project that involves the entire County, as well as the towns near where many 4-H'ers live. Farmers, youths, adults, and agribusiness leaders come together for a livestock show and sale that returns about $30,000 above market price to County 4-H Project participants. Last year the show involved 60 4-H'ers and 120 animals. Thirteen young people are active in the 4-H livestock judging teams. Some of these 4-H'ers have expressed interest in organizing a junior livestock association.

Soil Survey

Within the past two years, Adams County completed an intensive soil survey. Three months ago, a report on the survey was published in a handbook. Described in the report are the different soil types and their characteristics, with their locations on maps of the County. It is hoped that this soil survey will help to bring new industry to Adams County, as well as save prime agricultural land from commercial and industrial development. The survey findings also should help farmers develop more effective management plans.

However, a show of hands at a recent corn-production dinner revealed that only 20 of the 115 farmers present had picked up a copy of the soil survey. These 20 farmers all agreed, however, that some training was needed on how to use the survey and how to interpret the productivity and quality of different soils. Five of them had already gone to the Extension Agricultural Agent for help in using the survey data.

Beyond the farming community, 10 realtors and 2 elected county officials had called the County Extension office about the soil survey since its publication. Their calls were prompted by a local newspaper article, which is the only publicity the soil survey and resulting publication have received to date. The Community and Rural Development Advisory Committee has recommended that the survey be promoted and explained to farmers, realtors, builders, and local governmental agencies.

Youth Program Participation

Although Adams County has a potential Youth Program audience of 2,670 children between the ages of 6 and 8, only one 4-H Club has been established for this age group. Parents from at least one other community in the County have called to inquire about setting up a 4-H Club for youngsters in this age range, but the Extension Agent responsible for 4-H has done little to publicize the availability, largely because she already feels overcommitted and short of time.

Based on projections from census data of a few years ago, last year there were 11,029 older youths (ages 9 to 19) in Adams County. Of these, 1,297 were members of 31 community and project 4-H Clubs and 23 special-interest groups. These 4-H'ers were led by 208 adult volunteers. However, it is projected that the number of youths in this age range will decrease to 10,932 over the next 4 years. This participation is shown in Table 2.

Table 2. 4-H and Youth development statistics: last year's figures

		# of Groups	White*	Black*	Native Amer.	Hispanic	Asian	M/F	Total
Integrated groups	CL†	26	299	149	0	0	0	201/247	448
	SI	22	496	262	0	0	0	312/446	758
Nonintegrated in integrated communities	CL	1	0	10	0	0	0	3/7	10
	SI	0	0	0	0	0	0	0/0	0
Nonintegrated in nonintegrated communities	CL	4	21	8	22	0	0	15/36	41
	SI	1	0	0	30	0	0	21/9	30
TOTALS	**CL**	**31**	**320**	**167**	**22**	**0**	**0**	**219/290**	**509**
	SI	**33**	**496**	**262**	**30**	**0**	**0**	**333/455**	**788**
TOTAL CL & SI									**1,297**
Adult leaders	CL	31	48	35	0	0	0	13/70	83
	SI	98	25	2	0	0	0	54/71	125
Teen leaders	CL	9	8	0	0	0	0	4/13	17
	SI	2	6	2	0	0	0	5/5	10

* Not of Hispanic origin.
† CL = Clubs; SI = Special interest.

Four-H Clubs have strong local programs, and their members participate regularly in county, district, state, and national programs and events. Committees and organizations responsible for planning and implementing activities are well-staffed by teenage and adult volunteers, but they rely too heavily on direct supervision by the Extension 4-H staff member. Teen or adult volunteers are willing to accept positions of leadership in the county, district, and state, but they do not want to make decisions without the staff member's approval. They expect the Extension 4-H staff member to be present at all committee meetings and events.

For the past three years, the 4-H staff member has tried to organize advisory committees to plan broad, long-range programs. So far, attendance at these meetings has been too small to accomplish very much.

Direct parental support of 4-H project work activities is also low. Efforts are being made to increase parents' involvement as participants and chaperones at 4-H functions.

Family and Community Programs

Advisory groups in home economics have identified problems in the area of family economic stability and security. These advisory groups fear that many families are having difficulty managing their resources in an inflationary period. Also, they are concerned about financial management, consumer buying skills, and home-production and renovation capabilities. Poor parenting skills are seen as a problem that might contribute to child abuse, and one that is particularly important in light of the increasing number of teenage and out-of-wedlock pregnancies. At the other end of the age spectrum, about 30 percent of the population of Adams County is in the 45 or older age group. Several advisory committees feel that much needs to be done to encourage preretirement planning among middle-aged adults, and to teach older adults about the resources available to them for independent living. The County home economics program has offered a few programs in these areas, along with others chosen by the Extension Home Economics Agent.

Extension Homemakers Clubs

Adams County has 34 Extension Homemakers clubs, with a total membership of 442. However, only seven of these clubs can be characterized as composed of young homemakers, as illustrated in Table 3.

Young Homemaker membership increased in other home economics programs, but decreased in Homemakers clubs. A recent survey of the County depicts the typical Extension Homemaker Club member as between 40 and 65 years of age, married or widowed, educated at the high school level or beyond, and with an income of at least $15,000 a year. Most members live in rural areas of the County, and about 40 percent are employed either full time or part time.

Table 3. Extension Homemakers Clubs memberships for the past two years

	Last Year	This Year
Clubs with members 40 years and older	32	27
Number of members	405	354
Clubs with members under 40 years old	12	7
Number of members	120	88

Lay leader Extension advisory committees identified three major problems with the Extension Homemakers organization. The first is the need to impart to the organization's members the skills to carry out leadership and other roles. The second is the need to involve more young and minority homemakers. The third is the lack of involvement by men. Sex and racial statistics are shown in Table 4.

Table 4. Extension Homemakers statistics: last year's figures

	# of Groups	White*	Black*	Native Amer.	His-panic	Asian	M/F	Total
Integrated groups	30	255	140	0	0	1	0/396	396
Nonintegrated in integrated communities	2	10	9	0	0	0	2/17	19
Nonintegrated in nonintegrated communities	2	11	10	6	0	0	0/27	27
TOTALS	**34**	**276**	**159**	**6**	**0**	**1**	**2/440**	**442**

* Not of Hispanic origin.

Low-Income Homemakers

The Expanded Food and Nutrition Program (EFNEP) has been the only Extension education experience for many low-income homemakers in Adams County. Because of state and federal budget cuts, however, the five EFNEP assistant positions in the County will be discontinued, as of the end of March. The Home Economics Advisory Committee is greatly concerned about how to serve this low-income clientele without the EFNEP assistants, but so far has found no solution to the dilemma.

Last year the EFNEP assistants worked with 251 low-income families. Of these, 110 were new families to the program. The services reached 949 people, including 474 children. In addition, the assistants involved 45 volunteers who contributed 841 hours of services in working with 252 youths. About one-half of the youths were new to the program last year. About 91 percent of the families served by EFNEP had maximum incomes of $7,452 last year; 81 percent had incomes of $6,228 or less.

Even though the EFNEP resource will be lacking, the needs of low-income families remain. These needs have been identified in Adams County as the following:

1. Homemakers lack knowledge to prepare meals that meet daily nutritional needs.

2. Homemakers do not practice correct methods of food preservation.

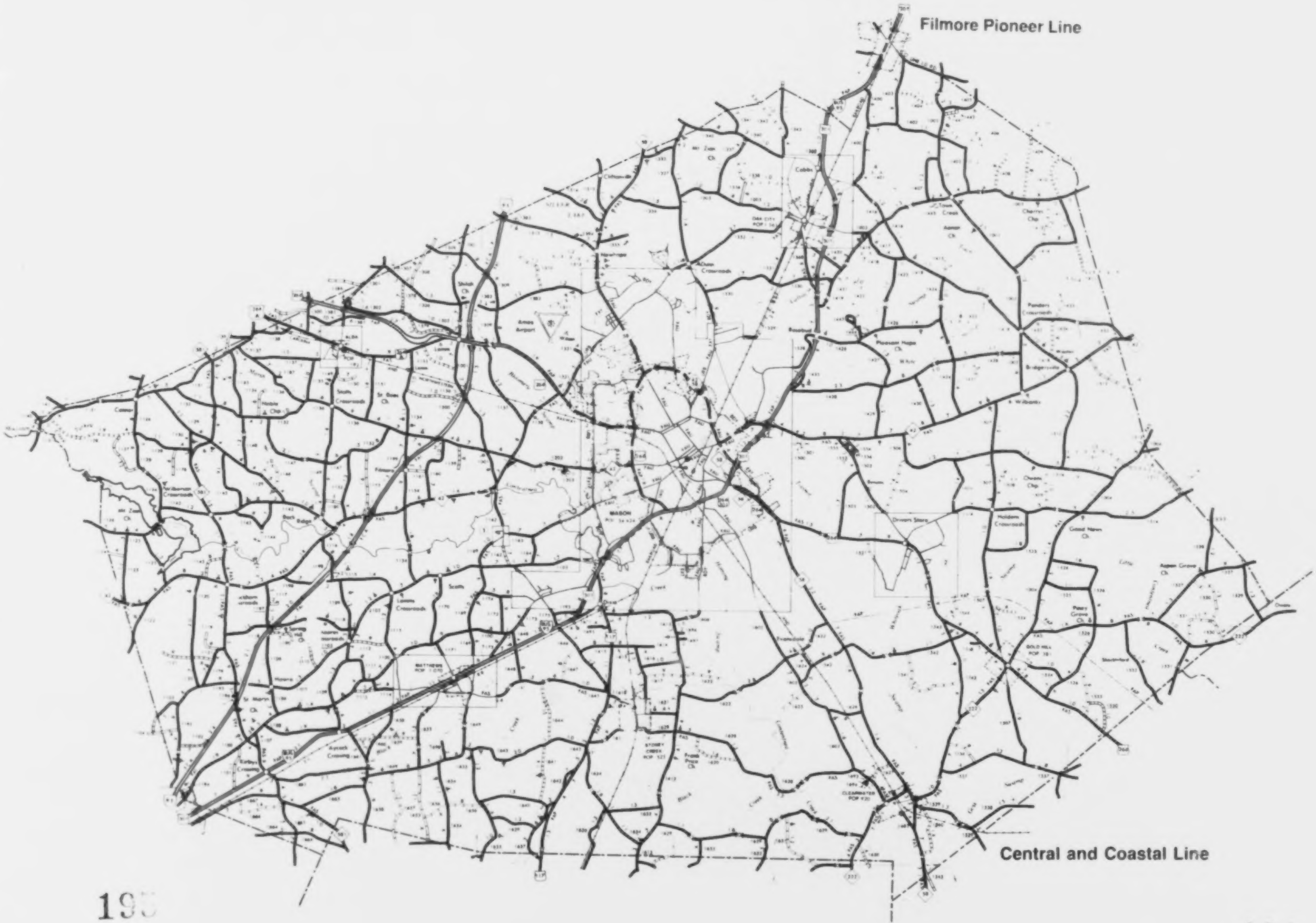
3. Families do not use available resources wisely, in order to satisfy the family's needs.

4. Homemakers do not have adequate food preparation skills in planning meals.

5. Too few families use gardening as a means of stretching their food budgets.

Appendix A

Adams County Map


Filmore Pioneer Line
Central and Coastal Line

Appendix B

County Demographic Information

ADAMS COUNTY DEMOGRAPHICS

Population	63,132
(1.1% of state)	
Density	170 per sq. mile
(18th in state)	

Median age		29.2
Male		27.8
Female		30.6
Under 18	(18,497)	29.3%
18-24	(8,396)	13.3%
25-34	(9,532)	15.1%
35-49	(10,795)	17.1%
Over 50	(15,912)	25.2%
By Sex		
Male	(29,797)	47.2%
Female	(33,335)	52.8%
By Race		
White	(39,943)	63.3%
Male	(19,059)	47.7%
Female	(20,884)	52.3%
Black	(22,981)	36.4%
Male	(10,639)	46.3%
Female	(12,342)	53.7%
Other	(208)	0.3%
Households		21,549
Persons per household		2.85

Buying Power

Per capita income	$9,239
(10th in state)	
Average household income	$15,779
Percentage by groups:	
Less than $8,000	25.8%
$8,000 - $10,000	6.9%
$10,000 - $15,000	17.5%
$15,000 - $25,000	27.2%
$25,000 and up	22.6%

Retail Sales (Last Year)

Adams County	$432,510,338
(21st in state)	
Mason	$342,797,788
(17th in state)	

	Adams County	State Average
Food	25%	24%
Automotive	18.5%	20%
General merchandise	11%	11.4%
Furniture & appliances	5%	5%
Restaurants	7.5%	7.2%
Drug stores	2.5%	3.7%

Labor Information (Approximate)

Labor force	32,940
Male (17,870)	54.3%
Female (15,070)	45.7%
White male (12,530)	56.5%
White female (9,670)	43.5%
Total white (22,160)	67.3%
Black male (5,290)	49.6%
Black female (5,380)	50.4%
Total black (10,670)	32.4%

Housing

There are 23,500 houses in Adams County valued at an average of approximately $67,700. Mason City has approximately 13,100 houses at an average cost of $70,300.

Forms of Employment

Manufacturing	35%
Nonmanufacturing	65%

Farm Income	$48,000,000 (est.)
Industrial Income	$130,000,000 (est.)

Miscellaneous Information

Motor vehicles registered	41,000 (approx.)
Education enrollment:	
Public schools	12,853
Private schools	968
Adams County (technical school)	1,402
(Full time 606, part time 796)	
Mason private college	1,526
Percentage that completed high school	48%

Voter Registration

Democrats	85%
Republicans	14%
Others	1%

(continued)

Area

Land	238,200 acres
Water	800 acres
Total	239,000 acres
City (Mason)	13.7 sq. miles
County (Adams)	373 sq. miles
Altitude	145 feet above sea level
Average Temperature	60.8°F
Rainfall	46.94 inches

INCORPORATED TOWNS

Mason

Population	34,424 (54.5% of county)
Median age	29.1 years
Female	(18,589) 54%
Male	(15,835) 46%
White	(20,423) 59%
Black	(13,081) 40%
Other	(345) 1%
Households	13,431
Persons per household	2.3
Median value	$70,300

Oak City

Population	1,561 (2% of county)
Median age	28.7 years
Female	(821) 52.6%
Male	(740) 47.4%
White	(889) 57%
Black	(671) 43%
Households	574
Persons per household	2.6
Median value	$61,600

Matthews

Population	1,070 (1.7% of county)
Median age	29.2 years
Female	(571) 53.4%
Male	(499) 46.6%
White	(980) 91.6%
Black	(90) 8.4%
Households	463
Persons per household	2.5
Median value	$64,500

Clearwater

Population	920 (1.5% of county)
Median age	33.9 years
Female	(419) 45.5%
Male	(501) 54.5%
White	(589) 64%
Black	(331) 36%
Households	331
Persons per household	2.78

Stoney Creek

Population	523 (0.8% of county)
Median age	29.8 years
Female	(255) 48.8%
Male	(268) 51.2%
White	(483) 92.4%
Black	(40) 7.6%
Households	177
Persons per household	2.95

Gold Hill

Population	381 (0.6% of county)
Median age	36 years
Female	(184) 48.3%
Male	(197) 51.7%
White	(374) 98.2%
Black	(5) 0.8%
Households	143
Persons per household	2.66

Alda

Population	192 (<1% of county)
Median age	31 years
Female	(100) 52.1%
Male	(92) 47.9%
White	(126) 65.6%
Black	(66) 34.4%
Households	56
Persons per household	3.4

TOWNSHIPS

Fishing Creek
Population ... 2,971 (4.7% of county)
Median age .... 28 years
Female .... (1,467) 49%
Male .... (1,504) 50%
White .... (2,494) 84%
Black .... (467) 16%
Households 947
Persons per household 3.1

Dabney
Population ... 3,075 (4.8% of county)
Median age .... 29 years
Female .... (1,573) 51%
Male .... (1,502) 48%
White .... (2,376) 77%
Black .... (686) 22%
Households 1,031
Persons per household 3

Bear Creek
Population ... 2,918 (4.6% of county)
Median age .... 27 years
Female .... (1,512) 51%
Male .... (1,406) 48%
White .... (1,464) 50%
Black .... (1,451) 49%
Households 855
Persons per household 3.4

Seaboard
Population ... 3,359 (5.3% of county)
Median age .... 30 years
Female .... (1,685) 50%
Male .... (1,674) 49%
White .... (2,437) 72%
Black .... (921) 27%
Households 1,116
Persons per household 3

Pleasant Hill
Population ... 2,192 (3.5% of county)
Median age .... 27 years
Female .... (1,097) 50%
Male .... (1,095) 50%
White .... (1,446) 52%
Black .... (1,040) 47%
Households 660
Persons per household 3.3

Buckhorn
Population .. 2,064 (3.3% of county)
Median age .... 31 years
Female .... (1,064) 51%
Male .... (1,000) 48%
White .... (1,343) 65%
Black .... (720) 35%
Households 694
Persons per household 3

Clearwater
Population .. 1,620 (2.6% of county)
Median age .... 31.4 years
Female .... (853) 52.6%
Male .... (767) 47.4%
White .... (1,005) 62%
Black .... (615) 38%
Households 526
Persons per household 3

Pineville
Population .. 4,963 (7.9% of county)
Median age .... 28.3 years
Female .... (2,557) 51.5%
Male .... (2,406) 48.5%
White .... (2,806) 56.5%
Black .... (2,146) 43.5%
Households 1,574
Persons per household 3.2

Mason
Population 37,642 (59.6% of county)
Median age .... 29.1 years
Female .... (20,332) 54%
Male .... (17,310) 46%
White .... (23,023) 61.2%
Black .... (14,463) 38.8%
Households 13,321
Persons per household 2.8

STATE STATISTICS

Population .... ___,___

Median age .... 30 years

Female .... _____%
Male .... _____%
Under 18 years .... _____%
18 to 64 .... _____%
65 and over .... _____%
White .... _____%
Black .... _____%
Indian .... _____%
Other .... _____%

Households .... _____
Persons per household .... _____
Families .... _____

Gross Retail Sales (last year) .... $_______

Registered Voters
Democrats .... (   ) ____%
Republicans .... (   ) ____%
Others .... (   ) ____%

Labor Force:
Manufacturing .... (   ) ____%
Nonmanufacturing .... (   ) ____%

Farm Income (estimated) .... $________

ADAMS COUNTY
Sex By Age Population Breakdown

Age (years)	Total	Female
Under 1	880	438
1	922	448
2	901	433
3	905	456
4	894	422
5	871	418
6	982	469
7	1,017	515
8	1,022	482
9	1,102	545
10	1,116	564
11	1,088	545
12	1,034	507
13	1,048	513
14	1,181	555
15	1,179	598
16	1,242	625
17	1,231	593
18	1,225	609
19	1,325	725
20	1,213	675
21	1,241	698
22	1,189	662
23	1,135	611
24	1,151	560
25	1,120	595
26	1,086	545
27	1,089	570
28	1,043	530
29	953	449
30	1,008	514
31	972	511
32	1,005	529
33	904	480
34	798	410
35	797	394
36	790	420
37	802	393
38	689	347
39	633	343
40	660	343
41	669	338
42	639	333
43	641	354
44	699	360
45	629	299
46	637	341
47	644	355
48	562	300
49	602	327
50	638	353
51	677	370
52	732	395
53	657	346
54	732	390
55	664	364
56	608	325
57	672	381
58	644	331
59	650	360
60	626	360
61	572	323
62	597	325
63	513	305
64	514	296
65	536	317
66	521	297
67	540	311
68	469	282
69	401	232
70	443	271
71	352	197
72	384	241
73	306	201
74	309	197
75	264	166
76	224	160
77	228	154
78	208	143
79	241	168
80	164	120
81	136	94
82	115	86
83	115	80
84	105	62
85	60	48
86	69	43
87	57	44
88	33	21
89	31	24
90	45	30
91	26	18
92	22	11
93	8	7
94	12	9
95	7	5
96	9	5
97	1	1
98	2	1
99	4	3
100 to 104	18	12
105 to 109	5	3
110 and over	1	1

Note: This table is based on most recent Census data, which were collected two years ago. Therefore, children who are six years old now are listed as four-year-olds on this sheet.

Appendix C

County Agricultural Statistics

Adams County Estimated Income From Sale of Farm Products

Commodity	Last Year	Projection for 5 Years Later
Corn	$14,156,235	$17,709,562
Soybeans	4,463,460	5,846,400
Wheat	2,944,225	3,575,610
Other crops	186,375	251,983
Fruits, vegetables, nursery, greenhouse	2,732,687	3,269,332
Forestry	2,648,800	3,730,000
Swine	8,778,116	10,858,000
Beef cattle	243,080	217,600
Poultry and eggs	4,424,066	6,665,325
Other livestock and livestock products	67,375	89,810
Total	$40,644,419	$52,213,622

Table 1. Farms, Land in Farms, and Land Use: Year 5 and Year 1

	All Farms				Farms with Sales of $2,500 or More			
	Year 5		Year 1		Year 5		Year 1	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Farms	1,118	155,892	1,190	144,411	1,047	153,536	1,098	139,332
Average size of farm	(X)	139	(X)	121	(X)	147	(X)	127
Approximate land area	(X)	240,000	(X)	240,000	(X)	240,000	(X)	240,000
Proportion in farms....percent..	(X)	65.0	(X)	60.2	(X)	64.0	(X)	58.1
Value of land and buildings:								
Average per farm....dollars..	196,252	(X)	97,532	(X)	209,528	(X)	102,760	(X)
Average per acre....dollars..	(X)	1,377	(X)	804	(X)	1,380	(X)	810
Land in farms according to use								
Total cropland	1,103	95,739	1,166	88,527	1,033	94,570	1,088	87,003
Harvested cropland	1,088	82,368	1,154	77,159	1,023	81,571	1,086	76,583
By acres harvested:								
1 to 9 acres	115	579	114	(NA)	93	461	58	(NA)
10 to 19 acres	176	2,535	183	(NA)	140	2,039	167	(NA)
20 to 29 acres	122	2,959	168	(NA)	117	2,852	162	(NA)
30 to 49 acres	189	7,265	225	(NA)	187	(D)	225	(NA)
50 to 99 acres	231	16,098	259	(NA)	231	16,098	259	(NA)
100 to 199 acres	164	22,928	133	(NA)	164	22,928	133	(NA)
200 to 499 acres	84	24,881	63	(NA)	84	24,881	63	(NA)
500 to 999 acres	6	(D)	6	(NA)	6	(D)	6	(NA)
1,000 acres or more	1	(D)	3	(NA)	1	(D)	3	(NA)
Cropland used only for pasture	160	2,899	213	3,706	143	2,683	188	3,053
Other cropland	482	10,472	416	7,662	464	10,316	396	7,367
Cropland in cover crops, legumes, and soil-improvement grasses, not harvested or pastures	78	1504	(NA)	(NA)	75	1,559	79	857
Cropland on which all crops failed	38	606	(NA)	(NA)	34	(D)	31	240
Cropland in cultivated summer fallow	38	1,649	(NA)	(NA)	36	(D)	34	1,501
Cropland idle	407	6,613	(NA)	(NA)	396	6,556	298	4,769
Total woodland	581	51,415	665	46,459	541	50,505	611	43,249
Woodland pastured	119	4,104	(NA)	(NA)	106	3,935	170	8,376
Woodland not pastured	523	47,311	(NA)	(NA)	491	46,570	504	34,875
Other land	649	8,738	715	9,425	604	8,461	661	9,080
Pastureland and rangeland, other than cropland and woodland pastured	72	2,718	(NA)	(NA)	67	2,671	53	3,157
Land in house lots, ponds, roads, wasteland, etc	619	6,020	(NA)	(NA)	574	5,790	646	5,833
Pastureland, all types	267	9,721	(NA)	(NA)	262	5,285	(NA)	14,626
Irrigated land	39	660	27	428	38	(D)	24	396
Harvested cropland irrigated	37	(D)	(NA)	(NA)	36	(D)	24	396
Pastureland irrigated	1	(D)	(NA)	(NA)	1	(D)	(NA)	...
Other land irrigated	1	(D)	(NA)	(NA)	1	(D)	.....	...
Land set aside in the federal farm programs	275	2,920	(X)	(X)	262	2,650	(X)	(X)

Note: Year 5 is the year of the most recent Census of Agriculture Report; year 1 is the year of previous census (4 years earlier.)

Table 2. Farms, Land in Farms, and Land Use: Year 5 and Year 1

	Number of Farms			Year 5						
				Farms with Harvested Cropland			Farms with Irrigated Land			
	Year 5	Year 1	Acres in Farms	Farms	Acres in Farms	Harvested Cropland	Farms	Acres in Farms	Harvested Cropland	Irrigated Land
All farms.......	1,118	1,190	155,892	1,088	154,833	82,368	39	12,043	5,492	660
Farms with--										
1 to 9 acres......	66	63	271	52	229	188	1	(D)	(D)	(D)
10 to 49 acres....	317	376	8,823	308	8,612	5,756	6	129	116	46
50 to 69 acres....	140	163	8,137	138	8,006	5,067	4	230	195	33
70 to 99 acres....	154	154	12,731	153	12,658	7.829	4	340	212	122
100 to 139 acres..	131	152	15,429	129	15,174	8,553	5	569	294	150
140 to 179 acres..	73	66	11,309	71	10,962	7,195	1	(D)	(D)	(D)
180 to 219 acres..	38	55	7,434	38	7,434	4,524	4	753	468	64
220 to 259 acres..	40	40	9,463	40	9,463	5,283	1	(D)	(D)	(D)
260 to 499 acres..	108	81	38,865	108	38,365	19,869	7	2,496	1,432	115
500 to 999 acres..	41	30	28,012	41	28,012	12,624	5	3,933	1,091	78
1,000 to 1,999 acres.....	8	9	(D)	8	(D)	(D)	...	.....	.....	...
2,000 acres or more.........	2	1	(D)	2	(D)	(D)	1	(D)	(D)	(D)

Key to abbreviations and symbols: ... Zero
(D) Data withheld to avoid disclosing information about individual farms.

Table 3. Operators—Tenure, Type of Organization, and Characteristics: Year 5 and Year 1

	All Farms				Farms with sales of $2,500 or more			
	Year 5		Year 1		Year 5		Year 1	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Lands in farms..........	1,118	155,892	1,190	144,411	1,047	153,536	1,098	139,332
Harvested cropland....	1,088	82,368	1,154	77,159	1,023	81,571	1,086	76,583
Tenure of operator:								
Full owners...........	366	41,853	477	41,252	321	40,229	406	37,003
Harvested cropland..	339	16.203	(NA)	16,496	300	15,763	(NA)	16,078
Part owners...........	343	77,057	299	65,931	332	76,676	292	65,384
Harvested cropland..	342	40,951	(NA)	35,091	331	40,789	(NA)	35,042
Tenants...............	409	36,982	414	37,228	394	36,631	400	36,945
Harvested cropland..	407	25,214	(NA)	25,572	392	25,019	(NA)	25,463
Type of organizations:								
Individual or family..	912	119,087	(NA)	(NA)	848	116,881	911	107,122
Partnership...........	171	27,506	(NA)	(NA)	164	27,356	169	25,128
Corporation...........	33	(D)	(NA)	(NA)	33	(D)	15	6,292
Other--cooperative, estate or trust, institutional, etc..	2	(D)	(NA)	(NA)	2	(D)	3	790

	All Farms		Farms With Sales of $2,500 or more	
	Year 5	Year 1	Year 5	Year 1
Operators by principal occupation:				
Farming	862	980	839	938
Other	256	192	208	142
Operators by age group:				
Under 25 years	31	15	30	12
25 to 34 years	158	99	145	93
35 to 44 years	185	205	177	185
45 to 54 years	261	371	240	354
55 to 64 years	343	344	331	320
65 years and over ..	140	138	124	116
Average age	50.0	51.2	49.9	51.1

	All Farms		Farms With Sales of $2,500 or more	
	Year 5	Year 1	Year 5	Year 1
Operators by place of residence:				
On farm operated	651	657	608	613
Not on farm operated..	318	272	299	254
Not reported	149	243	140	213
Operators reporting days days of work off farm:				
None	615	600	597	575
1 to 49 days	90	56	89	46
50 to 99 days	51	38	48	29
100 to 149 days	33	26	32	26
150 to 199 days	45	30	38	28
200 days or more	201	147	165	117

Table 4A. Livestock and Poultry—Inventory and Sales: Year 5 and Year 1

	All Farms				Farm With Sales of $2,500 or more			
	Year 5		Year 1		Year 5		Year 1	
	Farms	Number	Farms	Number	Farms	Number	Farms	Number
LIVESTOCK AND POULTRY								
Inventory:								
Any livestock or poultry	331	(X)	398	(X)	301	(X)	363	(X)
Any cattle, hogs, or sheep	290	(X)	365	(X)	266	(X)	332	(X)
Sales:								
Any livestock or poultry and their products $1,000	258	13,213	318	3,227	239	13,195	92	3,202
Any cattle, hogs or sheep...$1.000	239	(D)	306	(NA)	222	5,268	281	1,967
CATTLE AND CALVES								
Inventory:								
Cattle and calves	140	2,961	148	2,916	127	2,775	130	2,755
Cows and heifers that had calved	118	1,521	119	1,553	107	1,408	104	(D)
Beef cows	112	1,377	110	1,447	101	1,264	95	(D)
Milk cows	7	144	18	106	7	144	17	(D)
Heifers and heifer calves	84	952	(NA)	(NA)	77	913	61	550
Steers, steer calves, bulls, and bull calves	107	488	(NA)	(NA)	99	454	84	751
Sales:								
Cattle and calves	109	1,443	102	1,161	100	1,386	89	1,070
$1,000	(X)	406	(X)	(NA)	(X)	394	(X)	252
Calves	72	523	(NA)	(NA)	65	481	50	355
$1,000	(X)	105	(X)	(NA)	(X)	98	(X)	39
Cattle	87	920	(NA)	(NA)	81	905	59	715
$1,000	(X)	301	(X)	(NA)	(X)	296	(X)	212
Fattened cattle	45	403	(NA)	(NA)	41	397	31	353
$1,000	(X)	152	(X)	(NA)	(X)	149	(X)	118
Dairy products $1,000	5	150	(NA)	(NA)	5	150	2	(D)

Table 4B. Livestock and Poultry—Inventory Sales: Year 5 and 1

	All Farms				Farms with Sales of $2,500 or more			
	Year 5		Year 1		Year 5		Year 1	
...	Farms	Number	Farms	Number	Farms	Number	Farms	Number
HOGS, SHEEP, GOATS, AND HORSES								
Inventory:								
Hogs and pigs..................	209	35,337	288	21,061	196	35,194	267	20,796
Used or to be used for breeding....................	153	5,789	(NA)	(NA)	146	5,771	189	3,355
Other hogs and pigs.........	193	29,548	(NA)	(NA)	180	29,423	249	17,441
Litters of pigs farrowed between--								
Dec. 1 of preceding year and Nov. 30...............	157	7,253	225	4,646	150	7,234	208	4,591
Dec. 1 of preceding year and May 31................	142	3,622	194	2,131	136	3,610	182	2,104
June 1 and Nov. 30..........	118	3,631	149	2,515	114	3,624	135	2,487
Sheep and lambs...............	3	(D)	1	(D)	2	(D)	1	(D)
Ewes 1 year old or older....	1	(D)	(NA)	(NA)	...	......	1	(D)
Goats........................	1	(D)	(NA)	(NA)	1	(D)	...	......
Horses and ponies.............	32	185	33	116	25	151	24	99
Sales:								
Hogs and pigs..................	169	51,948	240	26,433	161	51,844	225	26,037
$1,000..	(X)	4,881	(X)	(NA)	(X)	4,874	(X)	1,715
Feeder pigs...................	56	7,743	67	6,771	53	7,699	63	6,629
$1,000..	(X)	301	(X)	(NA)	(X)	299	(X)	174
Sheep and lambs...............	1	(D)	...	......	...	......	...	......
Sheep and lambs shorn.........	...	......	(NA)	(NA)	...	......	...	......
Pounds of wool..............	(X)	......	(X)	(NA)	(X)	......	(X)	......
Sheep, lambs, and wool............$1,000..	1	(D)	(NA)	(NA)	...	...	...	...
Goats.........................	1	(D)	(NA)	(NA)	1	(D)	...	...
$1,000..	(X)	(D)	(X)	(NA)	(X)	(D)	(X)	...
Horses and ponies.............	3	36	2	(D)	3	36	2	(D)
$1,000..	(X)	(D)	(X)	(NA)	(X)	(D)	(X)	(Z)

Table 4C. Livestock and Poultry--Inventory and Sales: Year 5 and 1

	All Farms				Farms with Sales of $2,500 or More			
	Year 5		Year 1		Year 5		Year 1	
	Farms	Number	Farms	Number	Farms	Number	Farms	Number
POULTRY								
Inventory:								
Any poultry	85	(X)	116	(X)	75	(X)	103	(X)
Chickens 3 months old or older	75	(D)	109	24,009	66	(D)	96	23,759
Hens and pullets of laying age	74	(D)	103	23,650	65	(D)	90	23,426
Pullets 3 months old or older	5	91	(NA)	(NA)	5	91	4	47
Pullet chicks and pullets under 3 months old	2	(D)	(NA)	(NA)	2	(D)	2	(D)
Broilers and other meat-type chickens	8	200,015	12	192,200	7	(D)	10	(D)
Turkeys	2	(D)	(NA)	(NA)	2	(D)	3	9,804
Turkeys for slaughter	1	(D)	(NA)	(NA)	1	(D)	3	9,804
Turkey hens kept for breeding	1	(D)	(NA)	(NA)	1	(D)	...	....
Other poultry	8	(X)	(NA)	(X)	7	(X)	2	(X)
Sales:								
Any poultry	19	(X)	13	(X)	18	(X)	13	(X)
Chickens 3 months old or older	9	252,539	7	(D)	8	(D)	7	(D)
Hens and pullets of laying age	8	(D)	7	(D)	7	(D)	7	(D)
Pullets 3 months old or older	1	(D)	(NA)	(NA)	1	(D)	...	......
Pullet chicks and pullets under 3 months old	..	....	(NA)	(NA)	..	....	...	......
Broilers and other meat-type chickens	8	956,386	5	953,000	8	956,386	5	953,000
Turkeys	..	....	(NA)	(NA)	..	....	1	(D)
Turkeys for slaughter	..	....	(NA)	(NA)	..	....	1	(D)
Turkey hens kept for breeding	..	....	(NA)	(NA)	..	....	...	....
Other poultry	2	(X)	(NA)	(X)	1	(X)	...	(X)
Poultry and poultry products....1,000	26	7,743	24	1,166	22	7,742	23	(D)

Source: Year 5 Census of Agriculture--County Data.

Key to abbreviations and symbols:
... Zero
(D) Data withheld to avoid disclosing information about individual farms.
(X) Not applicable.
(NA) Not available.

Table 5. Yields Per Acre of Crops and Pasture

	Yield^a					
Map symbol and soil name	Corn (bu/A)	Soybeans (bu/A)	Oats (bu/A)	Wheat (bu/A)	Pasture (AUM^b)	Grass-legume hay (ton/A)
AaA Altavista	120	45	...	55	9.0	...
AyA Aycock	130	45	...	60	...	6.3
AyB Aycock	120	40	...	60	...	6.0
Bb Bibb	...	...	...	...	8.0	3.0
Co Coxville	110	40	70	50	9.0	...
DpA Duplin	110	50	...	60	10.0	...
ExA Exum	125	50	...	...	11.0	6.6
FuB Fuquay	80	30	60	...	8.5	...
Gpa Goldsboro	125	45	...	60	11.5	...
GpA Goldsboro-urban land	...	...	...	...	...	...
Gr Grantham	125	45	...	...	...	5.5
GtB2 Gritney	85	35	...	...	5.5	...
GtC2 Gritney	...	...	...	...	5.0	...
Gu Gritney-urban land	...	...	...	...	...	...
MaA Marlboro	110	40	...	...	...	...
MaB Marlboro	110	40	...	...	...	...
NaB2 Nankin	50	20	...	...	...	...
NnB Nason	90	30	70	45	8.0	3.0
NnC Nason	85	30	65	45	7.5	2.5
NoA Norfolk	110	40	...	60	10.5	...
NoB	100	35	...	55	10.0	...
NuB Norfolk-urban land	...	...	...	...	...	...
Qu Pits						

Table 5--Continued

	Yield[a]					
Map symbol and soil name	Corn (bu/A)	Soybeans (bu/A)	Oats (bu/A)	Wheat (bu/A)	Pasture (AUM[2])	Grass-legume hay (ton/A)
Ra Rains	110	40	70	45	7.0	3.0
Rb Rains-Urban land	...	...	...	...	....	...
Ro Roanoke	120	40	70	45	6.8	3.0
Sa Stallings	100	35	...	...	8.0	...
StA State	130	45	...	60	...	5.1
TaB Tarboro	50	20	45	30	6.0	...
TmB Tatum	90	30	70	50	8.0	3.0
To Toisnot	75	25	...	...	7.0	...
Tt Tomotley	130	40	70	...	...	...
Ud Udorthents						
Ur Urban land						
VaA Varina	100	40	60	45	8.0	3.0
VaB Varina	100	40	50	40	7.0	3.0
WaB Wagram	75	25	60	40	8.5	5.5
WeB Wedowee	80	35	80	45	8.0	3.0
WeC Wedowee	75	30	75	40	7.0	3.0
Wh Wehadkee & Chewacla	...	...	...	...	8.0	...
Wk Wilbanks	100	30	...	40	8.0	3.5

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[a] Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.

[b] Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Appendix D

Economic and Labor Profile

STATE ECONOMIC DEVELOPMENT
LABOR MARKET PROFILE OF ADAMS COUNTY

Population

	Last Year (B)	Year A (10 years earlier)	Percentage change, Year A to last year
Adams County	63,132	57,486	9.8
Female, percent.....	52.8	51.9	
Minority, percent ..	36.7	36.9	
Mason	34,424	29,347	17.3

Labor Force by Sex and Race

	Labor Force	Percent	Employment	Percent	Unemployment	Rate (%)
Total	32,940	100.0	29,180	100.0	3,760	11.4
Female	15,070	45.7	12,720	43.6	2,350	15.6
Minority	10,950	33.2	8,460	29.0	2,490	22.7

Note: Compiled by applying the most recent census proportions for sex and race to last year's labor force data.

Per Capita Income

	Current Year	County Rank[a]	Last Year
Adams County	$ 9,239	10	$8,164
State	$_____		$_____
United States	$10,491		$9,511

[a] Out of 100.

Industrial Structure (Labor Demand)

Job Sector	Current Year's Employment	Percentage of Total
Manufacturing	8,090	24.5
Nonmanufacturing	19,280	58.3
Agricultural	1,820	5.5
Other nonagricultural	3,870	11.7
Total	33,060	100.0

The complete nonagricultural wage and salary industry composition of the county is shown below. **Note:** Wage data are total payroll wages paid to executives and production workers and include bonuses, commissions, and incentive earnings. A 52 work-week year and a 40-hour work week are assumed.

Nonagricultural Wage and Salary Employment
First Quarter of Current Year

Industry	No. of Firms	March Employment	Payroll Wages*	
			Weekly	Hourly
Manufacturing	80	7,942	$318.83	$7.97
20 Food	13	737	327.07	8.18
21 Beverage	3	992	239.46	5.99
22 Textiles	4	276	329.38	8.23
23 Apparel	7	1,377	170.41	4.26
24 Lumber and wood	17	383	196.12	4.90
25 Furniture	1	.....	......	....
26 Paper	1	.....	......	....
27 Printing and publishing ..	5	89	233.71	5.84
28 Chemicals	1	.....	......	....
30 Rubber and plastics	4	1,924	492.44	12.31
32 Stone, clay, glass	6	793	358.77	8.97
33 Primary metals	2	.....	......	....
34 Fabricated metals	1	.....	......	....
35 Nonelectrical machinery ..	8	435	326.19	8.15
36 Electrical machinery	1	.....	......	....
37 Transportation equip.	6	417	295.87	7.40
Nonmanufacturing	1,283	17,979	$245.10	$6.13
01-09 Ag., forestry, fish. ..	29	276	145.10	3.63
10-14 Mining	1	.....	......	....
15-17 Construction	148	1,424	228.12	5.70
40-49 Transp., comm., public utilities	55	1,086	307.00	7.68
50-59 Trade	522	5,317	200.91	5.02
60-67 Finance, insurance, real estate	96	1,156	350.42	8.76
70-89 Services	380	3,576	258.69	6.47
90-99 Government	52	5,141	256.03	6.40
Total nonag wage & salary ...	1,363	25,921	$268.26	$6.71

*These are not production wages; they include bonuses, commissions, incentive earnings, and executive salaries.

Occupational Structure (Labor Supply)

Job Skill Levels	Employment	Percentage of Total
Skilled	10,590	35.5
Semiskilled	12,190	40.8
Unskilled	7,090	23.7
Total	29,870	100.0

The complete resident employment composition of the county is shown below. It includes all residents of the county, whether they are employed in Adams County or in other counties.

Resident Employment Composition for the Previous Year

Occupation	Previous Year's Employment	Percentage of Total Employment
Skilled	**10,590**	**35.5**
Professional, technical and related	2,870	9.6
Engineers	130	0.4
Medical services	590	2.0
Teachers	930	3.1
Other professionals	1,220	4.1
Nonfarm managers and administrators	2,690	9.0
Craftsmen, foremen and related	4,040	13.5
Construction craftsmen	1,120	3.7
Mechanics and repairmen	1180	4.0
Machinists and other metal craftsmen	120	0.4
Other craftsmen	1,620	5.4
Health occupations (personal and health services)	990	3.3
Semiskilled	**12,190**	**40.8**
Sales	1,880	6.3
Clerical	4,040	13.5
Operatives, except transport	4,550	15.2
Transport equipment operatives	1,430	4.8
Protective service	290	1.0
Unskilled	**7,090**	**23.7**
Laborers, nonfarm	1,320	4.4
Farm workers	3,170	10.6
Private household workers	1,090	3.6
Cleaning and food service	1,510	5.1
Total—all occupations	**29,870**	**100.0**

Adams County Labor Force Trends and Labor Recruitment

Year*	Labor Force	Employment	Unemployment	County Unemployment Rate	State Unemployment Rate	National Unemployment Rate
1	25,300	24,060	1,240	4.9	4.3	4.9
2	30,110	27,800	2,310	7.7	8.7	8.5
3	34,070	31,040	3,030	8.9	6.5	7.1
4	34.340	31,180	3,160	9.2	6.4	7.6
5	33,070	29,240	3,830	11.6	9.1	9.5

*Year 5 is most recent year.

Job Applicants

Recruitable labor comes from many different sources of an area's labor market: the employed, the unemployed, new entrants, reentrants, and persons underemployed. Another source is the job applicants registered for jobs through the public employment service offices as shown below. **Note:** Not all persons looking for jobs register at the employment service offices. Therefore, the following job applicant count is not representative of total labor recruitment in an area; it serves only as an indicator.

Adams County residents, September of the current year 1,695
Applicants within a 25-mile commuting radius of Mason
in April of the current year 7,095

Additional Labor Recruitment and Job Training in Adams County

Year	Number of High-School Graduates	Approximate Number Entering Labor Force
1	832	192
2 (most recent year)	836	167

Job Training For New and Expanding Industries

The state offers, free of cost to new firms locating in the state, job training for their employees. This free job-training service also extends to firms in the state that are expanding operations. The community college system has 58 institutions statewide equipped to train workers to meet any firm's technical job needs. Below are enrollments for some of the technical programs offered locally in the community college system.

Adams County Technical Institute
Mason

Curriculum	Last Year's Enrollment
Total	1,440
Business administration	69
EDP--business	161
Civil engineering	11
Industrial management	42
Manufacturing engr.	11
Mechanical drafting & des.	50
A/C heating & refrig.	9
Diesel vehicle maint.	37
Electrical installation	9
Electronic servicing	30
Heavy equipment oper.	31
Ind. main-electromech.	5
Machinist	38
Tool and die	9

Adjoining County Community College
Cardinal

Curriculum	Last Year's Enrollment
Total	2,299
Business administration	163
EDP-business	275
Marketing and retail	42
Pre-engineering	24
Pre-science	168
Agricultural science	9
Electronics engineer	130
Industrial engineer	23
Aviation maintenance	58
Mechanical drafting & des.	23
A/C, heating, and refrig.	33
Diesel vehicle maint.	118
Machinist	17
Welding	14

Data Sources:
Most recent U.S. Census
State Employment Security Commission
State Department of Public Instruction
State Department of Community Colleges

Prepared by:
State Department of Commerce
Business Assistance Division
Labor Resources Section

Appendix E

Other Socioeconomic Information

WOMEN'S STATISTICS BY COUNTY
RECENT CENSUS OF POPULATION AND HOUSING
OFFICE OF STATE BUDGET AND MANAGEMENT

	Adams County	State
Females 16 and older	25,499	
Female labor force	15,070	
Female participation rate (percent)	59.1	
Percentage of labor force that is female	45.7	
Working women with children	5,850	
Percentage of women with children working	64.9	
Working women with children 6 or younger	2,348	
Percentage of working women with young children	59.2	
Single female householders[1]	6,051	
Percentage of single female householders[a]	27.8	
Female-headed families in poverty[b]	1,138	
Percentage of female-headed families in poverty[b]	39.9	

---

[a] Includes female head of family with no husband present and female head of nonfamily household.

[b] Includes only female-headed families with no husband present.

Per Capita Income, Years 1 Through 5

	Year 1	Year 2	Year 3	Year 4	Year 5[a]
Adams County	5,792	6,790	7,470	8,164	9,239
State	______	______	______	______	______

In Year 5, Adams County ranked 10th highest in the state in per capita income.

[a] Year 5: Most recent year.

Labor Force Statistics for Adams County

	Percentage	Rank in State
Males in labor force	76.0	22
Females in labor force	59.1	38
Women with children in labor force	64.9	47
Workers in county of residence	87.3	16

Crime in Adams County

					Violent Crime			Nonviolent Crime			
	Year[a]	Crime Index Total	Non-Violent Index Total	Violent Index Total	Murder	Forcible Rape	Robbery	Aggravated Assault	Breaking and Entering	Larceny	Motor Vehicle Theft
Adams County	1	3,984	436	3,548	10	13	92	321	1,142	2,285	121
	2	3,759	406	3,353	9	24	111	262	1,084	2,157	112
Sheriff	1	720	87	633	6	1	11	69	243	367	23
	2	667	112	555	2	8	11	91	213	323	19
Mason	1	3,149	340	2,809	4	12	78	246	862	1,851	96
	2	2,996	285	2,711	7	15	99	164	831	1,793	87
Clearwater	1	20	0	20	0	0	0	0	5	15	0
	2	14	0	14	0	0	0	0	5	8	1
Oak City	1	32	1	31	0	0	1	0	10	20	1
	2	29	2	27	0	1	0	1	13	12	1
Matthews	1	46	2	44	0	0	0	2	13	31	0
	2	39	2	37	0	0	1	1	15	20	2
Gold Hill	1	5	1	4	0	0	0	1	4	0	0
	2	8	3	5	0	0	0	3	4	0	1
Stoney Creek	1	11	4	7	0	0	2	2	5	1	1
	2	5	1	4	0	0	0	1	2	1	1
State Highway Patrol	1	1	1	0	0	0	0	1	0	0	0
	2	1	1	0	0	0	0	1	0	0	0

[a] Year 2 is last year; year 1 is the year before.

Crime Index: The total of seven major offenses as follows: (1) murder, (2) forcible rape, (3) robbery, (4) aggravated assault, (5) burglary, (6) larceny, and (7) motor vehicle theft.

Violent Crime Index: The total of the following offenses: (1) murder, (2) forcible rape, (3) robbery, and (4) aggravated assault.

Nonviolent Crime Index: The total of the following offenses: (1) burglary, (2) larceny, and (3) motor vehicle theft.

Appendix F

Education, Youth, and Civic Data

Adams County Schools
Follow-Up of Last Year's Graduates

Four-year Public Colleges	174
Four Year Private Colleges	79
Community Colleges/Technical Institutes	180
Private Junior Colleges	23
Business and Nursing Schools	22
Military Service	118
Employment	167
Others	73
Total	836

Adams County School Enrollments
(Current Year)

School	Grades	Students
Avery	K-2	338
Boone	K-3	529
Robert Keyes	9-12	1,273
Deer	8	615
Ruth-Garska	4-7	492
Oak City Elementary	K-5	552
Oak City Middle	6-8	424
David	4-7	674
King	9-12	1,369*
Edward	K-5	350
Proctor	K-3	452
Glen	9-12	1,325
Dave Arny	K-5	298
Matthews	K-5	407
New River	K-5	185
Rocky Bottom	K-5	438
Spruce Valley	6-8	539
Spring Lake	6-8	474
Clearwater	K-5	296
David Glenn	4-7	614
Liles	K-3	625
Wheeler	4-7	584

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*Includes extended-day program.

OUR CHILDREN—OUR FUTURE

Needs of Children

Selected Variables	Adams County	State	Region	Nonregion
Number of children, ages 0 to 18	19,722			
Percentage of children living in poverty	26			
Percentage of poor children receiving AFDC	Not available			
Percentage of women in labor force with children ages 0 to 18:				
With children from 0 to 6	59.2			
With children from 7 to 18	69.3			
Motor vehicle accident deaths among persons of age 0 to 19 (per 100,000 population:				
Number	6			
Rate	28.6			
Infant death rate (deaths per thousand live births)	20.2			
Number of school dropouts from all grades per 100 high-school graduates	37.2			
Rate of juvenile justice cases (cases per thousand children, ages 10 to 17	21.34			

DRUG USAGE PREVALENCE QUESTIONNAIRE
Summary

In an effort to profile drug usage among Adams County high school students, 4,292 students were recently surveyed using a printed questionnaire developed by Parent Resource and Information on Drug Education (PRIDE), a Metropolis-based drug abuse prevention and education agency. The summary was administered by high-school teachers after permission was obtained from the Adams County Board of Education.

Students in grades 8 through 12 were surveyed. Inadvertently, 18 sixth and seventh graders and 3 nonstudents, probably teachers or student teachers, were surveyed. Forty-four records were invalid.

The survey consisted of 75 questions divided into 11 categories. Questions ranged from "How often do you watch TV?" to "At what age did you first use marijuana?" to "How often do your parents drink beer or wine?" In the survey results the response to each item is, for all items, broken down by grade, and further broken down, where appropriate, to reveal age of first use, perceived effect of substances on the user, location of use (home, school, etc.), time of use (before or after school, etc.), how often friends encourage use, feelings about harmful effects, and frequency of use by parents.

The following are some of the highlights of the survey, in summary form.

I. Personal Information

Sex	
Male	50%
Female	49%

Race	
White	50%
Black	46%
Other	1%
No response	3%

Age	
13	6%
14	18%
15	20%
16	22%
17	18%
18	11%
19	2%

II. Family Information

--65% reported parents are together; 31% reported parents are separated.

--34% reported having one or no siblings; 38% reported having two or three siblings. 24% reported having 4 or more siblings.

--77% reported fathers with full-time jobs; 12% reported their father to be unemployed.

--52% reported mothers with full-time jobs, 15% reported mothers with part-time jobs, and 29% reported mothers have no job.

III. Student Characteristics

--19% reported no dating, while 79% reported dating on a frequency from "seldom" (12%) to "a lot" (25%).

--22% reported never listening to rock music.

--48% reported watching TV "a lot."

--43% reported that they talk to their parents "a lot," while 8% reported they "seldom" or "never" talk to their parents.

IV. At What Age Did You First...

--40% reported never having used beer or wine, while 35% reported first drinking between ages 12 and 15.

--24% reported first drinking liquor between ages 12 and 15, while 59% reported having never consumed liquor.

--73% reported having never used marijuana, while 16% reported first use between ages 12 and 15. Marijuana use for the first time most frequently occurs between ages 12 and 13.

--94% reported having never used cocaine.

--91% reported having never used "uppers."

--93% reported having never used "downers."

--Smoking cigarettes for the first time most frequently occurs between ages 12 and 13.

V. How Often Do You...

--67% never smoke; 10% smoke every day.

--47% use no beer or wine; 13% use beer or wine weekly and 1% use daily.

--64% use no liquor; 6% use once a week and 1% use daily.

--78% use no marijuana; 2% use daily and 2% use three times a week.

VI. What Effects Do You Get When You...

Drink beer and wine?	7% get "very high";	4% get "bombed."
Drink liquor?	10% get "very high";	8% get "bombed."
Smoke marijuana?	8% get "very high";	3% get "bombed."

VII. Where Do You Most Often...

	At Home	Friend's House	In a Car	Other
Drink beer or wine? ...	10%	14%	13%	16%
Drink liquor?	7%	13%	5%	11%
Smoke marijuana?	3%	7%	5%	8%

(According to the survey, marijuana use at school is most prevalent among tenth graders.)

VIII. When Do You...

Drink beer or wine? ...... 44% reported using on weekends.

Smoke marijuana? .... 5% reported using before or during school, while
18% reported weekend use.

IX. Do Your Friends Encourage You To...

Drink beer or wine? ...... 33% reported "sometimes."
2% reported "a lot."

Smoke marijuana? .... 77% reported "never."
16% reported "sometimes."
3% reported "a lot."
2% reported "all the time."

X. Do You Feel the Following Drugs Are Harmful to Your Health?

--10% reported that marijuana is not harmful.
--11% reported they "do not know" if it is harmful.
--66% reported marijuana to be "a lot" harmful.

(Nearly one-fourth of those surveyed are in the response categories of either not knowing the harmful effects of smoking marijuana or feeling that it is not harmful.)

14% reported that beer or wine is not harmful.
8% reported that liquor is not harmful.
59% reported cigarette smoking to be "a lot" harmful.
40% reported beer or wine to be "a lot" harmful.
57% reported liquor to be "a lot" harmful.

XI. How Often Do Either of Your Parents...

Smoke cigarettes? ...... 44% reported "never."
Drink beer or wine ..... 48% reported "never."
Drink liquor .... 59% reported "never."
Smoke marijuana .... 91% reported "never."

Civic Clubs of Mason

- Altrusa Club
- American Business Women's Association
- Arts Council of Mason
- Business & Professional Women
- Elks Club
- Jaycettes
- Junior Woman's Club
- Kiwanis Clubs:
  - Kiwanis Club--All American
  - Kiwanis Club of Mason
  - Kiwanis Club--Wide Awake
- Moose Club
- Pilot Club
- Rotary Club
- Sertoma Club
- Woman's Club
- American Legion
- Beta Sigma Phi
- Civitan Club
- Jaycees:
  - Action Jaycees
  - Jaycees of Mason
- Lions Clubs:
  - Lions Club
  - Lions Club of Mason
- Men's Civic Club
- Optimist Clubs:
  - Optimist
  - Optimist Club of Mason
- Shrine Club

Appendix G

Planned Participation Distribution by Sex and Race

Planned Distribution of Sex and Racial-Ethnic Participation Status and Targets, Last Year and Projected Year Five, for Agriculture and Natural Resources Programs in Adams County

	White	Black	Native American	His-panic	Asian	Total	Total Male	Total Female
Potential recipients								
Number	15,156	8,529	48	200	10	23,943	12,043	11,900
Percentage ..	63.3	35.6	0.2	0.8	0.04	100.0	50.3	49.7
Last year's participation								
Number	2,944	611	37	0	0	3,591	2,837	754
Percentage ..	82.0	17.0	1.0	0.0	0.0	100.0	79.0	21.0
Year five projected participation								
Number	3,890	2,000	40	50	5	5,985	3,890	2,095
Percentage ..	65.0	33.4	0.6	0.8	0.08	100.0	65.0	35.0

Planned Distribution of Sex and Racial-Ethnic Participation Status and Targets, Last Year and Projected Year Five, for Home Economics Programs in Adams County

	White	Black	Native American	His-panic	Asian	Total	Total Male	Total Female
Potential recipients								
Number	15,685	8,820	60	200	15	24,780	8,425	16,355
Percentage ..	63.3	35.6	0.2	0.8	0.06	100.0	34.0	66.0
Last year's participation								
Number	4,708	1,468	9	0	10	6,195	496	5,699
Percentage ..	76.0	23.7	0.15	0.0	0.1	100.0	8.0	92.0
Year five projected participation								
Number	22,995	12,773	50	100	12	35,930	3,952	31,978
Percentage ..	64.0	35.5	0.1	0.2	0.02	100.0	11.0	89.0

Planned Distribution of Sex and Racial-Ethnic Participation Status and Targets, Last Year and Projected Year Five, for 4-H and Youth Development Programs in Adams County

			Native	His-			Total	
	White	Black	American	panic	Asian	Total	Male	Female
Potential recipients								
Number	10,112	5,575	55	50	8	15,800	7,584	8,216
Percentage ..	64.0	35.3	0.3	0.3	0.05	100.0	48.0	52.0
Last year's participation								
Number	816	429	52	0	0	1,297	552	745
Percentage ..	62.9	33.1	4.0	0.0	0.0	100.0	42.5	57.5
Year five projected participation								
Number	955	560	55	25	5	1,600	768	832
Percentage ..	60.0	35.0	3.0	1.6	0.3	100.0	48.0	52.0

Planned Distribution of Sex and Racial-Ethnic Participation Status and Targets, Last Year and Projected Year Five, for Community and Rural Development Programs in Adams County

			Native	His-			Total	
	White	Black	American	panic	Asian	Total	Male	Female
Potential recipients								
Number	1,962	1,128	10	0	0	3,100	1,463	1,637
Percentage ..	63.3	36.4	0.3	0.0	0.0	100.0	47.2	52.8
Last year's participation								
Number	694	298	0	0	0	992	629	363
Percentage ..	70.0	30.0	0.0	0.0	0.0	100.0	63.4	36.6
Year five projected participation								
Number	744	484	12	0	0	1,240	583	657
Percentage ..	60.0	39.0	1.0	0.0	0.0	100.0	47.0	53.0

Working With Our Publics

Module 2. The Extension Education Process

Learners' Packet

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Exercise 1
Understanding People As Learners

Part A: Understanding Myself

To be completed by individual workshop participants.

1. Briefly describe your best voluntary learning experience as an adult learner (not educator). Include why you were involved in the experience.

2. What methods for learning did you choose to use or, if your experience had an instructor, which teaching methods did you prefer? Why did you prefer those methods?

3. Is there anything you would change about the experience that would make it even better? Describe any changes you would make.

Part B: Understanding Others

To be completed by groups of workshop participants.

1. Share your responses to Part A with the other members of your group. As the other members relate their experiences, list any similarities or differences in their reasons for being or becoming involved, and their preferred methods for learning. Do those methods differ from those you would prefer?

2. Select two different content areas or topics. What methods would you need to use to be effective in teaching each topic to the others in your group? Would you feel comfortable with using those methods?

Exercise 2
Understanding the Learner's Situation

Situation Statement

The Smiths operate what is left of a three-generation farm. Mrs. Smith, who keeps the farm records, is concerned that the farm is costing the family money, rather than making any profit. Mr. Smith also operates a repairshop for furniture, small appliances, and small engines. He did not finish high school, and is usually described as a ''loner.'' Mrs. Smith works as a sales clerk at a local grocery store, and occasionally must work evenings. Mr. and Mrs. Smith have two children, ages 7 and 13. When neither parent is available during the evening, the grandparents take care of the children. The grandparents are active in their church, and attend church functions during the week, as well as on Sunday. Their local Extension office is offering a program in financial management on Wednesday and Thursday evenings.

1. What situational factors are relevant here in terms of helping the Smith family through the Extension education process? What traditions, beliefs, or values might affect the situation? What economic conditions are relevant?

2. Which situational factors are barriers? Which are helpful?

3. How would you design an Extension program that could help the Smiths?

4. Are there members of the Smith family who would not be able to become involved in the program as designed? Why?

Exercise 3
Linkage

PART A. Study, Analysis, and Mapping

Section I: Organization's Mission

Identify a problem area, a societal concern, or a critical issue within the broad mission of Extension that is addressable by educational programs. Review the Adams County data to make sure the problem, concern, or issue is relevant to Adams County.

Section II: Study, Analysis, and Mapping of Target Publics

A. List publics in Adams County that must be targeted to address this concern.

B. Which of those target publics show evidence of currently having linkage with the Adams County Extension program? List the linkages that are evident.

C. For a target public that shows either inadequate or no evidence of linkage with Extension, identify demographics, issues, and resources that are relevant to the problem, concern, or issue in Section I.

1. Demographics of the target public might include:

- Population characteristics examples: numbers of farmers, homemakers, youth by age, sex, race.

- Socioeconomic data examples: number employed, labor market now and in the future, wages and salaries, other income sources, single parents, farm bankruptcies.

- Issues relevant to target publics: Identify issues or controversies that affect the target publics, and give source of information.

- Relevant support groups and resources: Identify agencies, organizations, and businesses that could support Extension's programs with human or material resources.

D. Can you suggest ways that stronger linkages can be established and maintained with the identified target publics?

E. What would be the benefits to Extension of stronger linkage with these publics? to the program? to other groups?

Part B. Leader Identification

Section I: Introduction

To help ensure accountability, public support, and organizational renewal, Extension must maintain linkage with its publics. This linkage is achieved, in part, through identifying relevant publics and their leaders, and interacting with those leaders. A review of the literature will include the following leader identification approaches.

A. *Positional:* Identifying elected or appointed positions, such as, mayor, minister, principal, rescue squad captain.

B. *Reputational:* Interviewing influentials who can identify other leaders who influence decisionmaking in the target public.

C. *Personal influence or opinion leadership:* Identifying persons who do not hold public office, but whose opinions are respected. These opinions may be specific to an area of expertise.

D. *Decisionmaking:* Studying actual behavior of individuals that influence specific public decisions.

E. *Social participation approach:* Identifying people who are the most active as leaders in voluntary organizations.

Section II

A. List a public that your group targeted in this exercise.

B. Explain how the listed leader identification approaches might be used by a local Extension educator in identifying leaders of the target public.

1. Give examples of leaders who might be identified by each approach.

2. What are examples of leaders who might be overlooked by the listed approach(es)? Why?

3. Which approach or combination of approaches would you recommend for identifying leaders of the target public you named in II (A)? Why?

4. How would you suggest that the Extension educator make contact and establish a relationship with the various leaders?

5. What contributions can these leaders make to Extension program planning, design and implementation, and evaluation and accountability?

Exercise 4
Collaborative Identification, Assessment, and Analysis of Needs

Nominal Group Process

1. Individuals should list Adams County issues or problems that can be addressed through Extension programs. This is not to be discussed as a group until everyone has finished his or her list.

2. Share the lists in a round-robin approach (one person presenting one problem each time). No criticisms are to be made, but questions and clarifications should be encouraged. Secretary should record problems. A flip chart or a chalkboard would be helpful.

3. After you have heard all issues or problems, the secretary should summarize the list for the group. The group may find that they can fit the list into a few broad categories. This can be helpful if the list is long. Members should choose the three issues or problems that they think are the most critical, and rank those three.

4. Secretary calls out each item, and, in round-robin fashion, the group gives responses of their first choice. Repeat for second and third choice, with secretary tallying for each.

5. Responses can be weighted (1st = 3 points, 2nd = 2 points, and 3rd = 1 point) and rank ordered.

6. Analyze the highest ranked issue, problem, or need by brainstorming possible causes and possible solutions. Be constructively critical of possibilities generated. Are possibilities supported by facts? Are they practical? Are they appropriate for Extension and the situation? What other information do you need? What are some resources for obtaining more information?

7. Discuss how this information can be useful to you in planning an Extension education program.

8. What are the critical issues or initiatives currently receiving emphasis by Extension in your state?

9. What are the critical issues or initiatives currently receiving emphasis by Extension at the national level?

10. Which of the problems, issues, or needs identified in this exercise directly address current state or national initiatives or critical issues?

Exercise 5
Translating Needs to Objectives Hierarchies

Part A. Translating Expressed/Felt Needs Into Macro Needs

1. On line 1 at the bottom of the attached hierarchy, write a problem or need identified in the Adams County Case Study. This should be a "felt need," and should be expressed in terms of feelings of inadequacy or concern.

2. On line 2a, write an educational need that includes the felt need stated at the bottom of the hierarchy, and that could be met with a short educational program. Continue up the hierarchy (2b through 2e), writing needs that are more complex, subsume the one below, and take more implementation time. Needs should require continuous programming as you near the top of the hierarchy.

3. At the top of the hierarchy (line 3), write a broad problem area or issue (macro need) that expresses all needs listed below in the hierarchy and would either take several years to implement in the resulting program, or would probably always be a need.

Macro Need: 3. ____________________

Micro Need: 2e ____________________

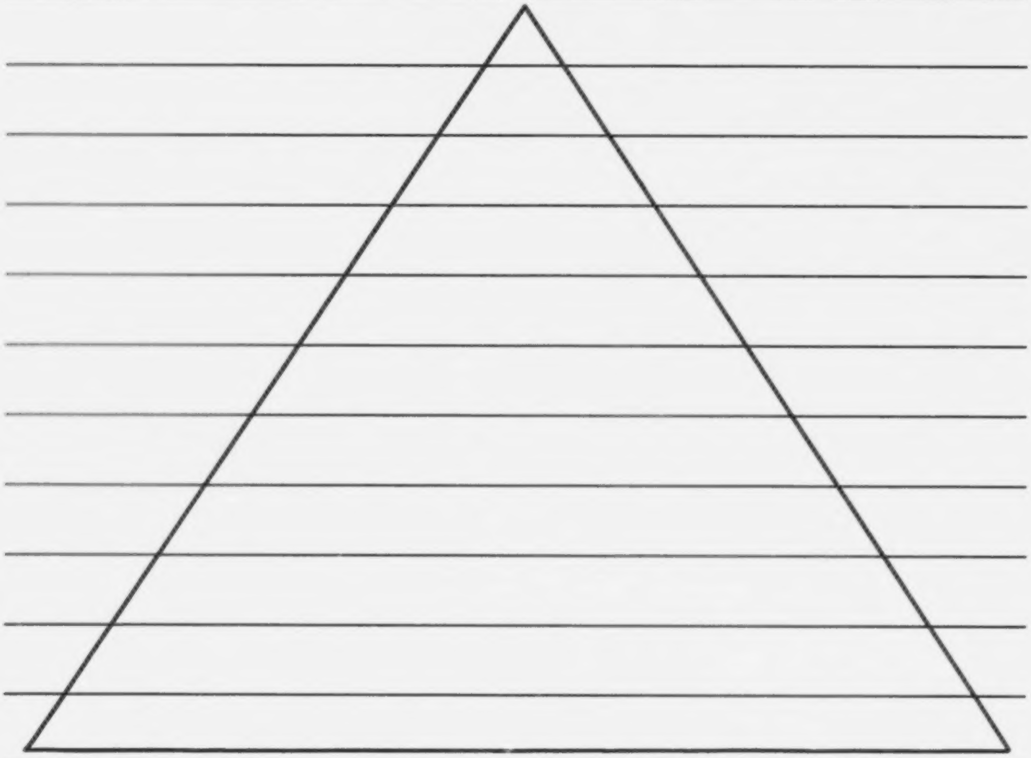
Micro Need: 2d ____________________

Micro Need: 2c ____________________

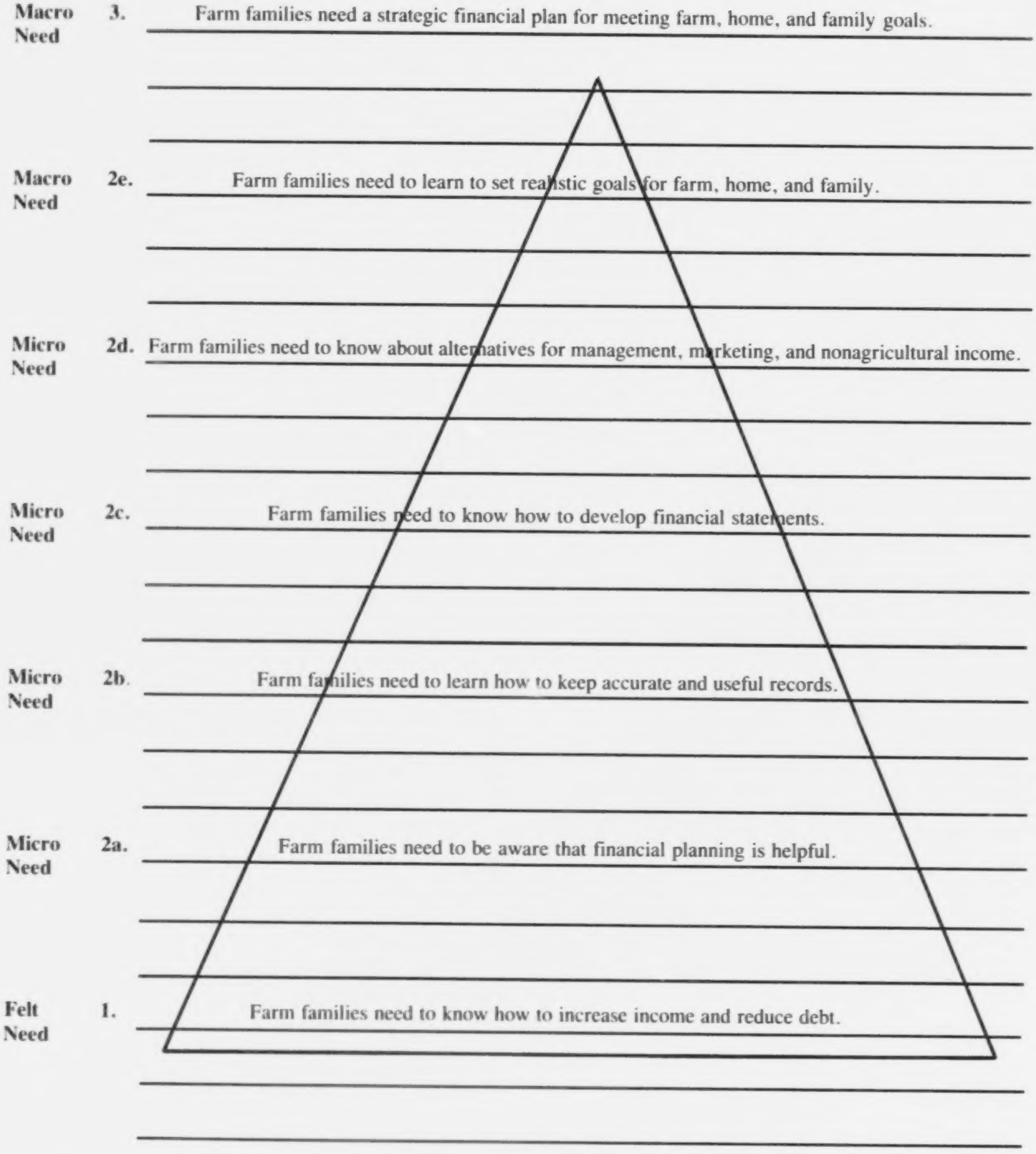
Micro Need: 2b ____________________

Micro Need: 2a ____________________

Felt Need: 1. ____________________



Example: Farm Family Financial Planning



Macro Need 3. Farm families need a strategic financial plan for meeting farm, home, and family goals.

Macro Need 2e. Farm families need to learn to set realistic goals for farm, home, and family.

Micro Need 2d. Farm families need to know about alternatives for management, marketing, and nonagricultural income.

Micro Need 2c. Farm families need to know how to develop financial statements.

Micro Need 2b. Farm families need to learn how to keep accurate and useful records.

Micro Need 2a. Farm families need to be aware that financial planning is helpful.

Felt Need 1. Farm families need to know how to increase income and reduce debt.

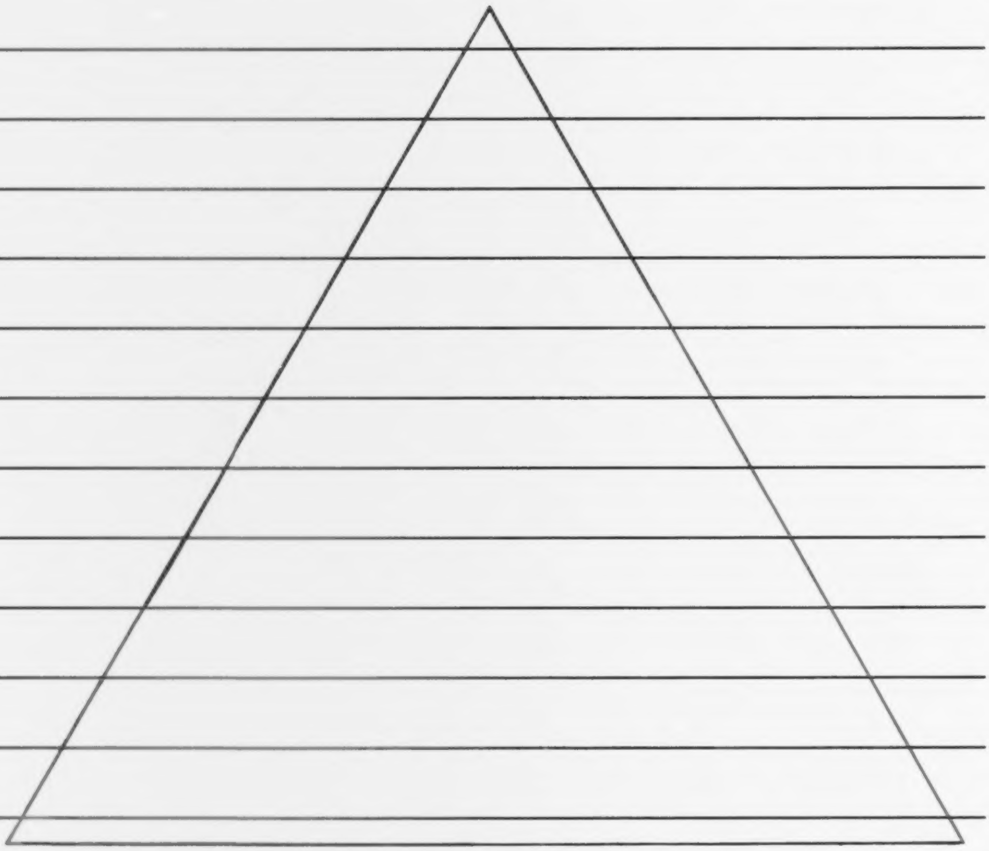
Part B: Translating Macro Needs Into Macro Objectives

Perform this exercise as a continuation of "Translating Expressed/Felt Needs into Macro Needs." In the same groups (or individually) perform the following tasks.

1. Write an objective at the top of the attached hierarchy that expresses the macro need at the top of the needs hierarchy.

2. Develop similar objectives for each of the needs expressed in 2a through 2e of the needs hierarchy. Write these objectives in the corresponding position on the objectives hierarchy.

3. Do your objectives include the qualities of measurable objectives described in the excercise on writing objectives. List the strengths and weaknesses of your objectives.



Macro Objective: 1. ____________________

Micro Objective: 2e. ____________________

Micro Objective: 2d. ____________________

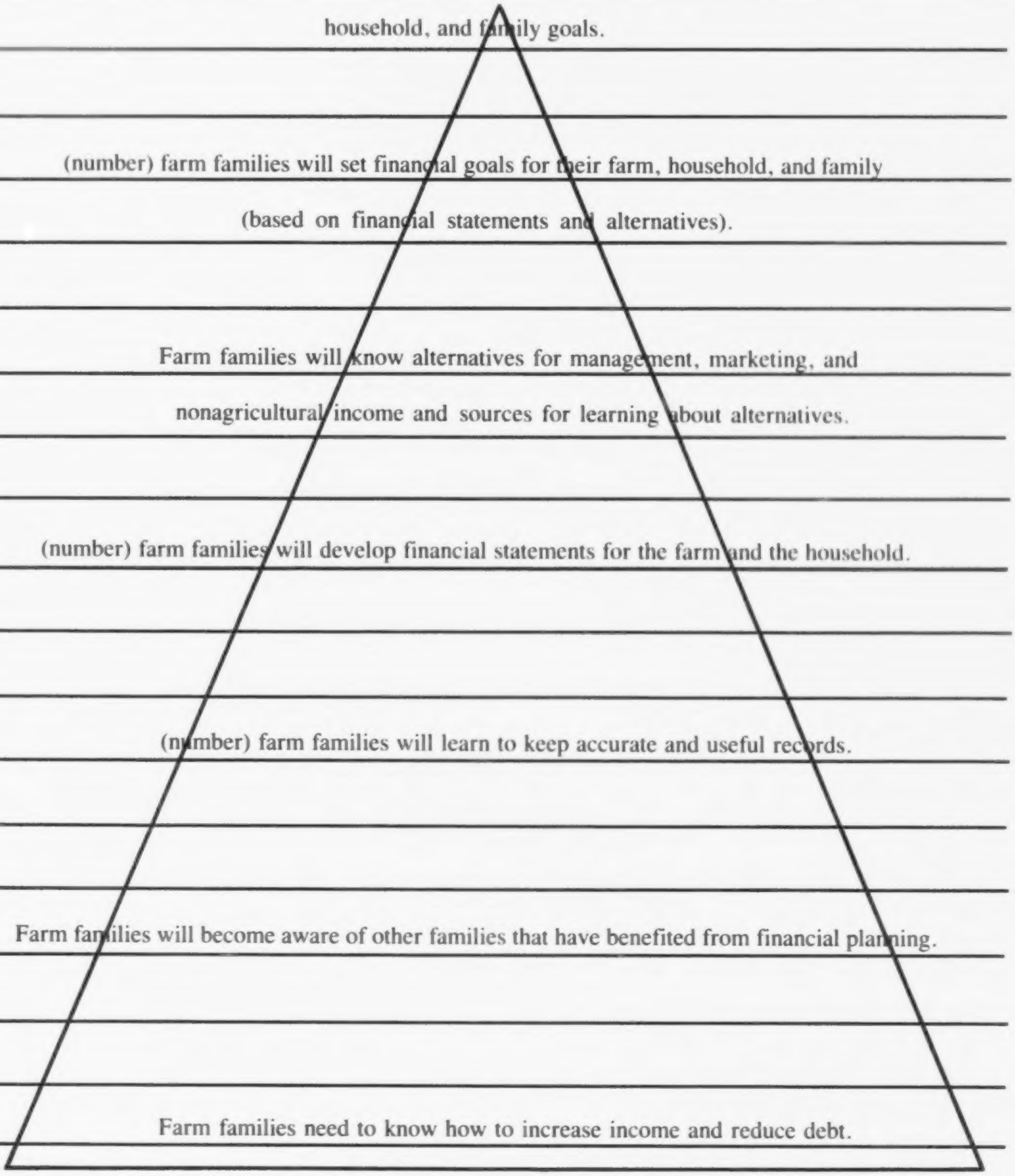
Micro Objective: 2c. ____________________

Micro Objective: 2b. ____________________

Micro Objective: 2a. ____________________

Felt Need: 3. ____________________

Example: Farm Family Financial Planning



Macro Objective 1. (number) farm families will develop a strategic financial plan for meeting farm, household, and family goals.

Micro Objective 2e (number) farm families will set financial goals for their farm, household, and family (based on financial statements and alternatives).

Micro Objective 2d Farm families will know alternatives for management, marketing, and nonagricultural income and sources for learning about alternatives.

Micro Objective 2c (number) farm families will develop financial statements for the farm and the household.

Micro Objective 2b (number) farm families will learn to keep accurate and useful records.

Micro Objective 2a Farm families will become aware of other families that have benefited from financial planning.

Felt Need 3. Farm families need to know how to increase income and reduce debt.

Exercise 6
Designing Change (Educational) Strategies

1. From the objectives hierarchy your group developed in Exercise 5, choose and list, in sequential order, two micro-objectives that you have considered. Attainment of the first should be necessary before the second can be achieved. Suggest a wide variety of learning activities for each objective.

2. How would you decide which learning activities are most appropriate?

3. Describe the general ''life-style'' of the target public(s) identified to receive the programs developed from the hierarchy. How would you learn more about their life-styles?

4. What obstacles (monetary, transportation, time, limited public communications access, lack of motivation, resistance to learning, or others) would you expect the target publics for your program to have?

5. How long would you estimate that it will take for the clientele to implement or achieve the objectives?

6. Based on the foregoing analysis, what general strategies (statements) are needed to guide the selection of learning activities appropriate for the target public(s)?

7. What outcomes or indicators of change do you think will be appropriate to use for evaluation?

Exercise 7
Learning Activities Selection Criteria

Choose a micro objective (teaching-learning) from the hierarchy you developed in Exercise 5. Determine the relevant characteristics of the following:

1. *Learners:* Who are the learners (target publics)? What personal characteristics, such as learning styles, physical ability, readiness to learn, and levels of proficiency, do they have?

2. *Educator:* Who is the best educator for this situation? an Extension educator? an Extension specialist? an Extension volunteer? Another resource person? What knowledge, attitudes, skills, or values should the Extension educator possess that could be helpful?

3. *Context:* What socioeconomic factors are present in the environment that could affect learning? What barriers to learning exist? Are there opportunities for learning?

4. *Content:* What is the content? Is the content to be learned considered to be knowledge, understanding, a skill, an attitude, a value, an interest, or a combination of two or more? Is the content drawn from a single discipline, or is it interdisciplinary in nature? Which disciplines?

Exercise 8

Designing Learning Activities

Procedure

Design an activity and support materials for the teaching-learning objective analyzed in Exercise 7. Using the guide sheets provided, or your own experiences, choose activities and materials that are appropriate for learner characteristics, educator qualities, context, content, and the following:

1. Give a rationale for how this activity will build onto meeting previous objectives in your hierarchy, and prepare the learners for attaining more complex objectives.

2. How will the activity keep the learners motivated? How will the activity help them to be self-directed in future learning efforts?

3. How will the learners know if they are performing adequately?

4. How will the learners practice what they have learned?

5. How will the learners be able to transfer their skills to other situations?

6. How will the learners know they are performing adequately when they apply the knowledge or skills in real situations?

7. What are indicators that the expected outcomes of this learning activity occurred?

Help Sheet 1 for Exercise 8

Matching Techniques to Desired Outcomes

Type of Outcome	Most Appropriate Techniques
Knowledge (Generalizations about learning activities; internalization of information)	Lecture, television, debate, dialogue, symposium, panel, group interview, colloquy, motion picture, slide film, recording, book-based discussion, reading.
Understanding (Application of information and generalizations)	Audience participation, demonstration, motion picture, dramatization, Socratic discussion, problem-solving discussion, case discussion, critical-incident process, case method, games.
Skills (Incorporation of new ways of performing through practice)	Role-playing, in-basket exercises, games, action mazes, participative cases, T-Group, nonverbal exercises, skill practice exercises, drill, coaching.
Attitudes (Adoption of new feelings through experiencing greater success with them than with old)	Experience-sharing discussion, group-centered discussion, role-playing, critical-incident process, case method, games, participative cases, T-Group, nonverbal exercises.
Values (The adoption and priority arrangement of beliefs)	Television, lecture (sermon), debate, dialogue, symposium, colloquy, motion picture, dramatization, guided discussion, experience-sharing discussion, role-playing, critical-incident process, games, T-Group.
Interests (Satisfying exposure to new activities)	Television, demonstration, motion picture, slide film, dramatization, experience-sharing discussion, exhibits, trips, nonverbal exercises.

—Adapted from Knowles (1970, p.294)

Help Sheet 2 for Exercise 8

Various Types of Learning Activities

Individual
Coaching (field setting)
Computer-assisted
Correspondence (home-study)
Reading (newsletter, manual)
Planned project
Television course
Tutoring (practice setting)

Large Groups
Lecture
Panel
Debate
Forum (total group discussion)

Community
Community survey
Field trip
Community problem-solving projects

Small Groups
Discussion (idea exchange)
Seminar (expertise or report exchange)
Case analysis
Simulation
Demonstration

Organizational
Self-study (of organization)
Work-team sessions (quality circles)
Action learning (action research, evaluate planned project as it is implemented)

Types of Educational Materials

Print: Newsletters, manuals, pamphlets, news articles, and others.
Audio: Radio, records, and tapes.
Visual: Slides, overheads, graphics.
Audiovisuals: Slide-tape sets, videotapes, television, computer, skits.
Simulations: Worksheets, games, computer, role-plays.
Examples: Demonstrations, models, specimens.

—Adapted from Knox (1986)

Exercise 9
Identifying the Levels of Evidence—A Matching Exercise

Instructions:

Following is a list of words often used to describe the outcomes or results of Extension programs. In the space provided, place the *number* of the appropriate *level of evidence. Circle* any items that can be used as indicators for the planned program based on the Adams County, USA, case study. List any other items that could be used as indicators for the case study program, and determine the appropriate level of evidence.

Example: 5 Skill acquired. This refers to a change in skill level #5.

Possible Results

____ Volunteer time

____ Meetings conducted

____Recommended procedures used

____Fuel saved

____Officials trained

____4-H membership increased

____Water quality improved

____Net income increased

____Expectations met

____Newsletters prepared

____Dollars saved

____Leadership skills improved

____People attending

____Community approval given

____Interest in program increased

____Received gardening information

____Use farm management records

____Dairymen's improvement of equipment

Level of Evidence

1. *Inputs:* The resources put into an Extension program.

2. *Activities:* Refer to Extension procedures, methods, meetings.

3. *People involvement:* Includes the number of program participants and their characteristics.

4. *Reactions:* Refer to participants' degree of interest, approval, or support.

5. *KASA change:* Refers to shifts in clientele knowledge, attitudes, skills, and aspirations.

6. *Practice change:* Refers to whether or not program participants use what they have learned; emphasis is on application.

7. *End Results:* The consequence of clientele practice change.

Exercise 10
Designing Evaluations

1. Why would you evaluate the program you have described in the Adams County, USA, case study?

2. Who would be involved in the evaluation efforts, and at what level would they operate?

3. What levels of evidence and change would you seek? Name two or three expected outcomes and match them to program inputs.

4. How could you collect data? What analyses would you use? Who would collect data, and on what schedule?

5. Name several uses of evaluation results. State your opinion as to the importance/relevance of each use. Who would find this information useful? Why?

6. How will this information be used for organizational renewal purposes? What changes might be recommended in the way Extension is organized, or the way Extension operates?

7. How will this information be used to increase financial and political support for the organization?

Exercise 11
Reporting Programs

Questions to Consider

1. How was the program planned? What was the need? Who was involved in planning? What target public(s) was this program intended to help? How?

2. What are the objectives of the program? What are the intended outcomes or benefits to society? What macro need or issue is being addressed if this micro need is met?

3. What was the program design? What activities did it involve? What community resources were used? Who helped with the program? Who benefited from being involved with the program?

4. Who has benefited from the outcome or results of the program? How do you know? How was the program evaluated?

5. Why should this program continue to be funded? Or, why should funds be allocated? For what specific purposes should funds be allocated?

Exercise 12
Accountability to Relevant Groups

Who is asking what questions of Extension? What types of information would each audience require? In the appropriate block, give examples of types of information required by each user.

Type of Information

Users of information	Input (quantified)	Activities	People involvment	Reactions	KASA	Practice change	End results economic and social (quantified)
Local Extension administrators							
District Extension administrators							
State budget administrators							
Local advisory groups							
State advisory groups							
Other support groups (associations, councils, etc.)							
Local government officials							
State government officials							
State budget planners							
State/federal auditors							
State Extension specialists							
State Extension evaluation staff							
Academic deans							
University presidents							
USDA							
International groups							
Yourself							

Help Sheet for Use by Participants in Their Own Work Places

Suggested Questions for Inquiry About the Extension Education Process

Note: Relate all questions in this exercise specifically to your county or area of responsibility.

The Planning Subprocess

1. What is the philosophy/mission of your organization?

2. Based on your assessment, indicate the extent to which this philosophy has been communicated and is understood by all the members of the organization. How is the philosophy of the organization exemplified in the day-to-day activities of the members of the organization?

3. What are the educational macro objectives of your organization? What is the origin of these macro objectives? Are they inferred, or stated in writing?

4. Are these macro objectives the focus of the activities of the organization's staff? How do these objectives function in determining the allocation and organization of staff resources?

5. What is your impression of how well these macro objectives are understood by staff members at all levels of your organization?

6. What are the major job groups in your organization? How are these job groups related to the mission and objectives of your organization? Are written job descriptions provided in your organization?

7. Can you discern the line-staff relationships of job groups in your organization?

8. Are there clearly defined policies to guide the programmatic efforts of the staff? Are these policies related to the mission and macro objectives of the organization?

9. Characterize and evaluate the effectiveness of the supervisory-management system of your organization. Is this management system contributing to the accomplishment of the organization's objectives? How effectively is management accomplishing the following functions:

- Recruitment and selection of staff,
- Supervision of staff,
- Staff development, and
- Evaluating and being accountable for the programmatic efforts of the staff.

10. Is there a specified system to guide staff efforts in planning, designing and implementing, and evaluating and accounting for educational programs for adults? How extensive is the understanding and commitment of the staff to the defined programming system of the organization? What evidence is there of the existence of such a system? What evidence is there of the extent to which this programming system is understood and being used by the major job groups in the organization?

11. What is the mechanism whereby your organization is continually changing to maintain its relevance in a fluid and dynamic environment?

12. What strategies does your organization use to interface with its client groups? How has your organization defined the boundaries of the client groups that it is trying to reach? What efforts have been made to rank these client groups in terms of priority, as inferred by the mission/philosophy and macro objectives of the organization?

13. Describe the procedures used by your organization in studying, analyzing, and mapping the target publics of your organization.

14. Has your organization delineated and identified the leaders (formal and nonformal) of each of its target publics? Are these leaders being used by your organization to help define the educational needs of the client groups they represent?

15. What strategies/methods are being used by your organization to interface with the leaders of targeted publics?

16. How are the educational needs of each target public defined? How are these needs assigned priority by your organization?

The Program Design and Implementation Subprocess

1. Does your organization, institution, or agency have a long-range program? Is the long-range program projected for a two-year, five-year, or a longer period of time?

2. What is the genesis of the long-range program? Who was involved in developing the program? Howwere micro needs translated into macro needs?

3. Describe the long-range program in terms of its macro needs, macro objectives, learning strategies and methods, and plans for evaluation. What are the macro objectives that are included in the planned program?

4. How well is the long-range program understood by the administrators, middle managers, and teaching faculty of your organization?

5. To what extent are professional persons in your organization following or using the long-range program in the conduct of their daily, weekly, and monthly program activities?

6. Has a copy of the long-range planned program been shared with your organization's volunteer leadership and constituency?

7. Has your organization developed a strategy for implementing the planned program? Is your organization using a plan of action or a sequential series of instructional units?

8. Briefly describe the relationship and linkage between each of the following:

Planned Program	**Plan of Action**
Macro needs	Micro needs
Macro objectives	Micro objectives
Change strategies	Learning activities
Evaluation of planned program	Evaluation of plans of action

9. Can you discern a relationship between the planned program and the plans of action?

10. How is your organization marketing its plan(s) of action? Describe the strategies being used. Who are the relevant publics? How effective is the marketing plan?

11. How are human and material resources being generated by your organization in implementing its plan(s) of action? Does your organization have a plan for recruiting, selecting, training, and supervising volunteer leaders?

12. How is your organization monitoring the action part of the teaching-learning transactional process? How often are volunteer leaders and other program personnel observed by the teaching faculty? Is there a plan for helping leaders and processing the feedback that they provide?

13. Is the feedback, or suggestions obtained from the teachers/volunteers and other persons, used in revising or redirecting plans of action?

The Evaluation and Accountability Subprocess

1. Are the objectives of the planned program and plan(s) of action of your organization clearly defined?

2. Has an effort been made by your organization to specify the evidence that will need to be collected with regard to each objective of the planned program and plan(s) of action?

3. Is the evidence specified for several sequential plan of action objectives additive in nature?

4. Are valid and reliable instruments being used by your organization to collect evidence in an orderly manner?

5. To what extent is your organization making an effort to assess the learning activities in its plan(s) of action?

6. Is your organization using an orderly and understandable method(s) for reporting its program results to its publics?

7. Is there evidence to indicate that your organization is using its program results to modify or make adjustments in its plan(s) of action and planned program?

Exercise 13
Evaluation of Module Experiences

Directions: Using the rating scale, SA = strongly agree; A = agree; U = undecided; D = disagree; and SD = strongly disagree, *circle* the response that most nearly expresses your feelings about the following statements

Unit I

1. Understanding the learner is essential to the Extension education process. SA A U D SD

2. Understanding the context in which learning occurs is essential to the Extension education process. SA A U D SD

3. The Extension educator has important impacts on the learning context. SA A U D SD

4. The content to be provided in an Extension program is determined by the Extension educator. SA A U D SD

5. Organizational renewal is a result of continuous involvement of people in planning, implementation, and evaluation. SA A U D SD

Unit II

6. Extension's publics are defined by the needs and issues that can be addressed with Extension's educational resources. SA A U D SD

7. Leaders of Extension's publics can provide assistance in assessing needs and issues. SA A U D SD

8. Motivation for learning is based on the Extension educator's convincing attitude. SA A U D SD

9. Learners know what they want to accomplish through learning. SA A U D SD

10. Extension educators can help learners identify what they need to learn to accomplish their goals. SA A U D SD

Unit III

11. Plans of work should help the Extension educator be effective and efficient. SA A U D SD

12. Objectives help to guide program design, implementation, and evaluation. SA A U D SD

13. Objectives can express behavioral changes that cannot be measured. SA A U D SD

14. Implementation of objectives in a sequenced hierarchy helps learners to accomplish goals and avoid failure. SA A U D SD

15. Strategies are plans for implementing objectives that are based in information revealed through situational analysis. SA A U D SD

Unit IV

16. People's decisions to become involved in Extension programs are influenced by situational factors. SA A U D SD

17. The best environment for motivating all learners is the group workshop. SA A U D SD

18. Learners have needs to learn certain content, but also have preferences for how they want to learn. SA A U D SD

19. Using a variety of methods can help people to be more comfortable learning and to acquire new ways of learning. SA A U D SD

20. Design of learning activities will be more effective if strategies based on the learners needs and preferences are used for designing them. SA A U D SD

Unit V

21. Behavioral changes in the learner can only be inferred; they cannot be assessed. SA A U D SD

22. Learner changes can be evaluated at different levels. SA A U D SD

23. If positive behavioral change, based on needs is not occurring, program adjustment/organizational renewal should occur. SA A U D SD

24. Different sources of evidence are used for different purposes. SA A U D SD

25. Evaluations provide accountability data. SA A U D SD

Unit VI

26. Extension is accountable to learners, its publics, funding groups, parent organizations, and legislative bodies. SA A U D SD

27. Groups to which Extension is responsible may need different types of information. SA A U D SD

28. Extension should help people to be self-directed learners. SA A U D SD

29. Extension educators should depend entirely on staff development specialists for their professional improvement. SA A U D SD

30. The Extension education process should help both learners and the Extension organization to be involved in a continual process of positive change. SA A U D SD

Working With Our Publics

Module 2: The Extension Education Process

Instructional Aids

Developed by: Richard T. Liles, State Leader of Training
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North Carolina State University

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Published by the North Carolina Agricultural Extension Service
and the Department of Adult and Community College Education
North Carolina State University, Raleigh

Instructional Aids for Module 2

The following instructional aids, developed to accompany Module 2, are provided to assist workshop leaders in conducting effective learning experiences. These materials are referred to in the Leader's Guide and elsewhere in this Module. They are listed here by the unit in which they are used. Workshop leaders may find this checklist helpful in ensuring that all necessary materials are on hand before presenting this Module.

The instructional aids include masters from which transparencies can be made using whatever type of equipment is available locally. Tips on producing transparencies are given on the following page.

Unit I. Adult Education Principles and Organizational Renewal

Slide-Tape Set: "Nature, Structure, and Function of the Extension Education Process"

Videotape: "A Conceptual Programming Model, Part I"

Publication: "Public Policy Education," by R. Barrows
Publication: "Public Policy Education in Extension Home Economics"

Unit II. Planning: Linking the Organization With Its Publics

Videotape: "Linking With Relevant Groups"

Unit III. Designing the Planned Program

Transparency 1: Purpose of Developing Objectives
Transparency 2: Objectives Reflect:
Transparency 3: Objectives Relate to Situation Statements
Transparency 4: Objectives Reflect the "Learning Gap"
Transparency 5: Objectives Use Situational Analysis
Transparency 6: Educational Objectives Are:
Transparency 7: Management Objectives Are:

Videotape: "A Conceptual Programming Model, Part II"

Reprint: Pages 26–28 from *Connections*

Unit IV. Implementing the Planned Program

Transparency 8: Print
Transparency 9: Aural
Transparency 10: Interactive
Transparency 11: Visual
Transparency 12: Haptic
Transparency 13: Kinesthetic
Transparency 14: Olfactory
Transparency 15: Cognitive

continued

Transparency 16: Social
Transparency 17: Emotional
Transparency 18: Perceptual

Slide-Tape Set: "Action Strategies"

Unit V. Evaluation

Videotape: "A Conceptual Programming Model, Part III"

Unit VI. Accountability

No instructional aids.

Making Overhead Transparencies From the Transparency Masters

Provided with this module are masters for making transparencies to be used with an overhead projector. The transparencies can be made in one of three ways.

Method 1: Thermal Process
One of the quickest ways to make overhead transparencies is with a Thermofax copier or similar thermal machine designed for this purpose. The masters themselves, however, cannot be run through the Thermofax. Start by making good quality copies of the masters on an office copier. Then lay a piece of thermal transparency film on top of the copy and run the two sheets through the Thermofax machine together. (*Do not use acetate;* it will melt and destroy your copier.) The resulting positive transparency can be placed in a cardboard frame for durability. By using different types of film, transparencies of various colors can be made.

Method 2: Diazo Process
As in making transparencies by the Thermofax method, the first step in the diazo process is to make a high-quality copy of the transparency master. For this process, however, the copy must be translucent or transparent. The copy is placed onto a piece of diazo film and exposed in a special light box with an ultraviolet light source. After the proper exposure interval, the film is removed and processed in a jar of ammonia vapor. The completed film can be mounted in a cardboard frame. The color can be varied by using different types of diazo film.

Method 3: Film Negative Process
This process requires the use of a darkroom and a copy camera capable of handling large originals and negatives. No preliminary copying of the transparency masters is necessary. The masters themselves are photographed on 8 1/2-by-11-inch high-contrast line film at full size using the copy camera. After the film negative has been processed, the image will appear as clear areas on a black background. The negative can be mounted in a cardboard frame and used to project a white image on a black background or backed with an adhesive gel such as Project-O-Film to produce a colored image. This approach is ideal for situations in which the image is to be revealed one part at a time during projection; opaque flaps can be taped to the frame to cover the various parts of the image and turned back one at a time.

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Richard Barrows

17% hike in tax levy
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NCR publication #203

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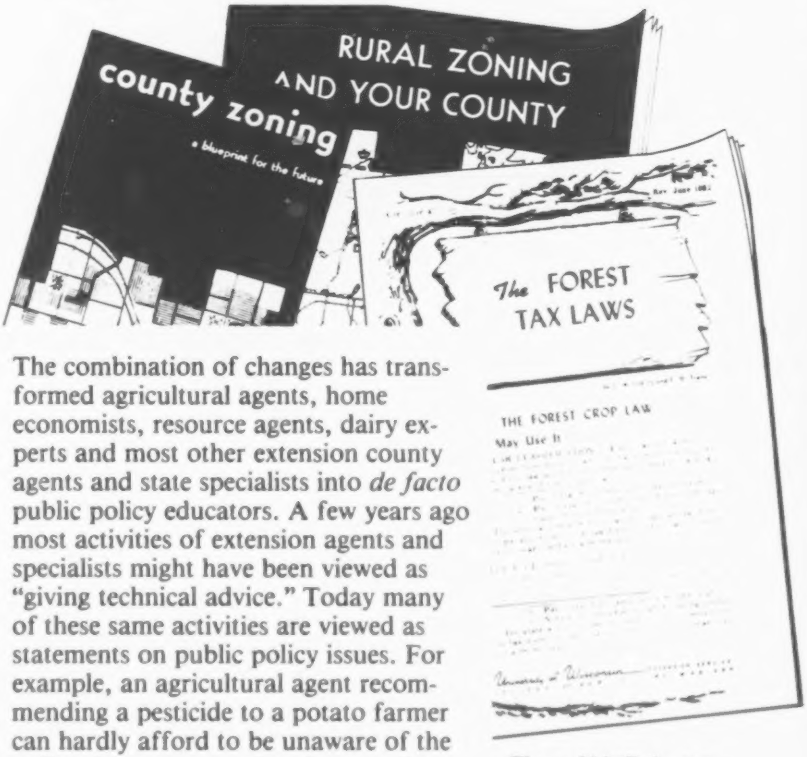
PUBLIC POLICY EDUCATION:
KEY CONCEPTS AND METHODS

Public policy education is an extension program that applies the knowledge of the university to public issues and educates citizens to enable them to make better-informed policy choices.

Public policy education is not new for Extension. At least as early as the 1920s extension educators were working with rural people on land use policy. Over the past six decades many of the policy issues have changed, but some have remained remarkably the same. Rural land use, taxation, management of public lands, local economic development policy, agricultural policy and many other public issues have been with us for many decades. To this list we could add programs on nutrition and health policy, many issues involving social welfare, poverty, employment and a myriad of environmental policy concerns. Some of the methods of extension educators are new, such as the Educational Telephone Network, public television, or the statewide computer communications network. However, some methods are still the same – a county agent, a state specialist, some farmers and other local citizens meet in the town hall in the dead of winter to discuss some major issue facing the town, the county, the state or the nation.

The need for policy education and the public's demand for information on public issues is probably greater today than anytime in the past. Changes in communication technology have made people much more aware of what is happening outside their local area, and how they are affected by changes in the state capital, the national economy or international trade. Citizens are also much more aware of the environmental impacts of activities such as manufacturing, forestry or agriculture. Finally, local, state and federal governments have assumed a much greater role in matters such as managing the economy, protecting the public health and social welfare and improving the quality of the environment. People are increasingly interested in public policy issues and the activities of government.



These old bulletins are one example of Extension's long tradition of dealing with public policy education.

The combination of changes has transformed agricultural agents, home economists, resource agents, dairy experts and most other extension county agents and state specialists into *de facto* public policy educators. A few years ago most activities of extension agents and specialists might have been viewed as "giving technical advice." Today many of these same activities are viewed as statements on public policy issues. For example, an agricultural agent recommending a pesticide to a potato farmer can hardly afford to be unaware of the policy debate concerning the use of certain pesticides and environmental protection. The agent's "technical" advice, especially if he expands his efforts to include a public defense of farm chemicals, will be viewed by many (perhaps even a majority) as equivalent to taking a policy position against environmental protection. Extension agents

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[1] Several people have contribued to the ideas in this bulletin. Glen Pulver and Bill Saupe, Department of Agricultural Economics, and Steve Born, Bud Jordahl and John Roberts, Department of Urban and Regional Planning, University of Wisconsin-Extension, provided some very thoughtful comments on an earlier draft. Larry Libby, Michigan State University, Vern House, Montana State University, and Barry Flinchbaugh, Kansas State University, also made several good suggestions for improving the manuscript. Rusty Roland, Cornell University, provided several additional references and other comments. The author is responsible for any and all errors of fact or interpretation.

and specialists must be aware that at least part of their work involves public policy issues. *Almost all Extension agents and specialists are involved in policy, even if they do not realize it, and regardless of whether they like it or not.*[2]

Extension's opportunity, or obligation, to educate the public on the major public policy issues of our day is the subject of this publication. The philosophical basis for Extension involvement will be very briefly reviewed. To be successful in public policy education, the educator must hold certain values, and these will be very quickly discussed. Some organizational issues – prerequisites for successful involvement – will be briefly explored. The questions of what issues to choose, when to teach, whom to teach and how to teach will be discussed. The purpose of the entire publication is to stimulate thought and discussion on the opportunities and pitfalls inherent in public policy education and some of the practical issues involved in conducting policy education programs.[3]

Pesticides often kill more than pests on state farms

Even a highly technical subject may involve policy issues best handled in a public policy education framework.

PHILOSOPHICAL BASIS FOR EXTENSION PUBLIC POLICY EDUCATION

EDUCATIONAL PHILOSOPHY

Public policy education rests on a specific concept of the Land Grant University and its role in a democratic society. The Land Grant University in general, and Extension in particular, is concerned with the problems of people and is committed to using the knowledge of the University of improve the quality of life for the people of the state. Lest we think of Extension's mission too narrowly, it is useful to recall the 1915 statement of Chairman Butterfield of the original Land Grant Committee on Extension: "It will give farmers light upon taxation as well as upon tree pruning. The rural school will have as much attention as corn breeding. . ."[4] In many states this tradition has been upheld for many decades.

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[2] Vern House brought to my attention a very similar argument by James Hildreth of the Farm Foundation: "All education, in one way or another involves public policy issues. This statement has become more clear in recent years. Many of the topics which used to be considered objective technical subject matter are now policy issues. . . Thus, whether you want to be in public policy education or not, you are." James R. Hildreth "Why Do Policy Education" in *Proceedings of the Southern Regional Public Policy Education Workshop*. J.B. Williams, ed., Southern Rural Development Center, Mississippi, April, 1980.

[3] For a thorough discussion of these issues and some examples of public policy education programs, see Verne M. House, *Shaping Public Policy: The Educator's Role*, Westridge Publishing, P.O. Box 310, Bozeman, Montana, 1981.

[4] Quoted in R.L. Reeder, "Rethinking Public Policy Education" *Journal of Extension*, Spring, 1970, p. 18.

Public policy education is also based on a pluralist view of the democratic political process in which there are numerous individual interests and interest groups and many decision-makers with potentially conflicting interests in the various branches of government. Public policy decisions are viewed as compromises among these divergent interests. This is an extremely important concept because it implies that there is no single public interest and no optimal policy choice. The fact that there is debate means that the perceived interests of different groups conflict, giving rise to the policy issue. Any solution or resolution of the debate will favor some groups and hurt (or not help) others.[5] Scientific knowledge, the wisdom of the university, cannot be used to determine the "correct" policy choice for society because science cannot supply the value judgement that ranks the interests of one group as more important than the interests of others. This philosophical position will have important implications for teaching methods, discussed below.

Finally, public policy education is based on a philosphical concept of the value of public participation in governmental decisions. It is assumed that if the democratic process is to function effectively, the citizenry must be well-informed of the major issues of the day, and must have the opportunity to participate in the decision-making process. These ideas did not originate with Extension. Plato argued that education was the key to developing good policy and social conditions in his ideal Greek city-state. Thomas Jefferson placed great faith in education and the importance of a well-educated and well-informed citizenry as the basis for representative democracy.[6]

THE EDUCATOR'S VALUES

To be effective in public policy education, the educator must operate on the basis of certain values and beliefs about human behavior, the democratic process and the role of education in a free society. The educator may recognize these values explicitly, or the values and beliefs may simply be implicit in his actions.

Enlightened Self-Interest. First, the educator must be willing to believe that *enlightened self-interest* is a reasonable guide to individual behavior. The educator must believe that individuals generally know when they are better or worse off, are able to use whatever knowledge they have to decide which courses of action are most likely to leave them better off, and are willing to try to act accordingly. Enlightened self-interest is most effective in guiding behavior if individuals have sufficient knowledge of current conditions and the consequences of various possible changes—precisely the type of information provided in a good public policy education program. The enlightened self-interest assumption should not be too difficult for most educators to accept.

A public policy education campaign must be objective and as unbiased as possible. But it will rarely be politically neutral.

B. Wolfgang Hoffmann

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[5] Occasionally a policy issue will arise in which all groups could be made better off by some particular policy choice. Conflict occurs either because the participants in the debate are not aware of this option or because one or more of the groups favor an alternative that would make them even better-off, but that would hurt other groups (or benefit them much less), compared to the alternative in which all groups would benefit.

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[6] One of Jefferson's most widely quoted statements on education is contained in a letter to William Jarvis, September 28, 1820, in which Jefferson wrote: "I know or no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education."

Enlightened self-interest does not mean that people are totally selfish. In fact, some amount of benevolence, trust and respect for the rights of others is necessary for any society to survive. For the policy educator, believing in the principle of enlightened self-interest simply means believing that people have the basic intelligence or common sense to be able to identify the best policy alternative, where each individual defines "best" in terms of his own preferences. Sometimes an individual's policy choice may be dictated strictly by his own narrow economic interest. At other times individuals may favor a policy because they believe it is best for society or morally right, even though their own interest would be harmed if the policy were adopted. In the end, a belief in enlightened self-interest reduces to the proposition that individuals know their own preferences and are able to make judgements about which policies will have results that are most in accord with their own preferences—or at least that individuals are able to make these judgements for themselves better than anyone else could make the judgements for them. In this scheme, knowledge of policy alternatives and consequences is absolutely essential for intelligent choice, and this is the purpose of public policy education.

Democratic Process. A second necessary belief for the public policy educator is that the democratic process is a reasonable way to make decisions when not all parties are agreed on the most preferable course of action. Public policy education is based on the assumption that a well-informed citizenry is crucial to the democratic process and that the democratic process is a reasonable means of making decisions about matters in which the interests of various groups in society conflict. Although most educators subscribe to these beliefs, it is certainly legitimate to raise questions about whose interests are served by the political process and whether all interests are fairly represented.[7]

Actually, the public policy educator does not need to subscribe to the belief that the current version of the democratic process in the local community or state works perfectly. All that is necessary is the belief that the democratic process is a more reasonable means of making decisions than administrative fiat or the dictates of a single individual.

Most important, the educator must believe that (s)he does not possess the wisdom to always make the right choice for society. The public policy educator must value highly the right of individuals to make their own choices. In the end, (s)he must have some faith that a well-informed citizenry and the democratic process will produce a choice that is right for society, or at least produce a right choice more often than any other decision-making method.

PRACTICAL CONCERNS

If the educator's personal values are consistent with the philosophy outlined above, then it is appropriate to shift attention to more practical questions about beginning a public policy education program. There are a few prerequisites for a successful program. Assuming these prerequisites are met, the educator must ask: "How do I know *what issues* to tackle? How do I know *when* to plan and when to teach? *Whom* do I teach?" These more practical concerns are the subject of this section.

PREREQUISITES

There are a few simple prerequisites for a successful public policy education program. These are *necessary* conditions for success, but not in themselves sufficient. Without these a program is likely to fail, but meeting these conditions does not guarantee success. The prerequisites involve conflict, institutional support and information.

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[7] James Laue has argued that if certain groups are not properly represented in the current version of the democratic process, Extension should make a special effort to include these groups in its educational programs. This point will be discussed later in this publication. (See James Laue "Value-Free, Objective Educators" in *Coping With Conflict*, North Central Regional Center for Rural Development, Iowa State University, 1979.

Conflict. Public policy education deals with issues that are controversial. A decision that is to be made by government becomes a policy issue precisely because there is controversy, a conflict among individuals and groups about the best course of action to pursue. For example, a decision to take bids on harvesting part of a state forest is usually not controversial—it is not a policy issue. But when certain individuals and groups object to timber harvest in a certain area because it destroys scenery and wilderness, *then* the matter may become a policy issue of some importance to county government. If there is no controversy, no conflict, there is no policy issue. So by definition, policy education deals with public questions or decisions over which of these are disagreements and conflicting interests. No matter how objective the public policy educational program, it is likely that some individuals or groups will object to the effort, if for no other reason than that the educational program makes the issue more visible. Besides, even absolutely factual information is rarely politically neutral.

Support. Extension as an organization must be willing, and able, to withstand the controversy and criticism that even the best public policy education project may create.[8] Past experience suggests that there is strong support for public policy education among the leaders of Extension, and that Extension administrators will support county agents and state specialists if a good educational program draws fire in the political arena.

Because public policy education can be controversial, it pays to establish a good foundation for the program both within Extension and among outside groups. At the state level, this means informing Extension administrators and colleagues that a program is being planned. Even for the most independent state specialists that is not a particularly odious requirement and in fact will usually occur without too much conscious effort.

For county extension agents, in addition to informing colleagues and administrators, the support of the county board's agriculture and extension education committee is extremely important. Experienced agents are usually experts in involving their committee members in policy education programs. Generally it is easier to obtain support if committee members understand the basic philosophy of public policy education before any specific issue arises. In many counties Extension has a long history of involvement in public policy education and it may be relatively easy to obtain committee support. In other counties it may be much more difficult to convince the committee members that Extension has a legitimate role in dealing with policy issues.

Information. A second step in building a good foundation for a policy education program is to inform key individuals and groups on all sides of the issue that an educational program is being planned. In fact, many extension programs in policy education evolve because state specialists and county agents are already interacting with various groups and individuals with an interest in the policy issue. Again, it will be very easy and natural to inform the various interests that a program is planned. The broader the audience and the more widespread the interest in the policy issue, the more important it becomes to touch base with all the relevant interests. For example, if the audience is the voting public, the issue is a state tax limitation referendum, and the mass media will be used to disseminate information, it may be quite important to touch base with all the major interests before beginning. On the other hand, if the issue is national marketing policies for cranberries and the audience is cranberry growers it may be less important to inform all possible interest groups of the plan for an educational program. (It still may be important to inform all the relevant factions among the cranberry growers). Although it may not always be *necessary* to inform a broad range of interests about a policy education program it may be *useful* to do so and may help build the perception that Extension educators make a sincere effort to maintain objectivity and neutrality in policy education. The only danger is that some important interests or key individuals are *not* informed, either because of oversight, because they had not been interacting with extension staff, or because the extension specialist or agent has already "taken sides" in the policy debate. In these cases the program and the extension educators are more likely to face charges of bias or political favoritism.

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[8] Ron Powers, currently associate Extension Director in Iowa, has argued that Extension really has little choice in the matter: "My own view is that an extension system that purposefully avoid issues and arenas where conflict exists is doomed to mediocrity. . .viable, growing organizations must serve emerging needs and issues and incur some risk because the alternative of being 'safe' is, in reality, also 'risky.' " Ronald C. Powers, "Social Conflict in Community Resource Development and Public Policy Education" in *Coping With Conflict*, North Central Regional Center for Rural Development, Iowa State University, Ames, Iowa, 1979.

The basic point is this: (1) the subject matter of public policy education is policy *issues*; (2) issues arise because of conflict among interest groups; (3) it is possible that the policy education program will itself become part of the controversy over the issue; (4) one way to help minimize the probability of this occurrence is to touch base with interest group leaders on the various sides of the debate, *before* beginning the educational program. Other ways to reduce the probability of becoming a target for political flak will be discussed later.

WHAT ISSUES TO CHOOSE?

Public policy education is issue- or problem oriented, as distinguished from extension programs that provide general information or technical training. An appropriate issue must have several characteristics.

Public Concern. Most important, the issue must be an important *policy question*, and the object of some public concern or debate. It is useless to try to design an educational program around something perceived as an issue only by the educator or a small group of Extension faculty. The issue must be perceived as important by a significant part of the intended audience; otherwise people will not spend the time, energy, and money to become better informed on the issue.

Issues that are defined by what extension educators are trained to do, or issues that are defined by the puzzles of an academic discipline are not likely to lead to successful public policy education programs. Similarly, the educator may correctly identify an important policy question which must be decided, but if it is not defined as an issue by the intended audience, a policy education program is not likely to be successful. For example, the use of federal lands in Alaska was an important policy issue debated at the national level in the late 1970's and early 1980's. However, it was not an important policy issue as perceived by most people in rural Wisconsin, so a public policy education program designed to reach the general public would have failed. But a similar program designed for environmental groups might have succeeded.

Raising drinking age

Whose Issue? This raises the question of *who* is "the public" that defines the issue. Clearly, it cannot be the extension educator alone or an extension committee. But it is also not necessary to have widespread concern among the general public in order to have a successful policy education program. It may be quite appropriate for an extension educator to work with a small number of key people who *do* see an issue and are struggling to resolve it. The issue may later capture the attention of a large segment of the general public, or a large segment of some interest group, such as the cranberry growers or town government officials. For example in Wisconsin, agricultural land taxation was perceived as a policy issue by only a handful of legislators and farm leaders in ear-

Part of the educator's role is to find the "teachable moment" – the point where the issue begins to attract public attention, but before everyone has taken a firm or rigid position.

ly 1974 and a small-scale policy education program was conducted. By 1975 the topic was widely perceived as a policy issue by farmers, environmentalists, local officials and many others and a much larger-scale program was organized. The basic point is that the issue must be perceived by the *public*, and particularly by the part of the public that is the intended audience for the public education program.

Issues change, and so must public policy education programs. In some cases, as a policy debate begins to form around an issue, the extension program might be designed to help people more clearly define the problem. As the issue sharpens, the debate may focus on the policy alternatives and consequences. Later, the issue may be resolved, at least temporarily, by some executive or legislative decision, and the extension program may change to provide information on what has been decided. Often a decision may simply shift the policy issue and debate from one level of government to another, and the policy education program can simply shift accordingly. In some cases, the original policy decision will later be re-evaluated and the policy education program may shift once again. There is no formula for determining the most appropriate stage of the issue to conduct an educational program. Any or all of the issue stages may be appropriate, but the program must be designed accordingly.[9]

Values and Knowledge. Not all public policy issues are appropriate for a public policy education program. Obviously, the educator must have some knowledge of the policy issue, or be able to obtain information from others. Also, the intended audience must need the information or analysis.

In general, the more an issue can be analyzed using university research or academic methodology, the more it suits a policy education program. However, this argument should not be taken to an extreme. All the facts pertinent to an issue are never available, so if any educational programs are ever to be conducted it will always be with an incomplete factual record.

Sometimes an issue may be intensely debated, but all the information, analysis and knowledge of the university may already be known by the participants in the debate. The facts are known, but differing values lead different groups to opposite positions on the issue. In these cases the extension educator has little to add. Science cannot be used to identify the most appropriate set of values. Even in this case a policy education program might have been useful at some earlier stage of the debate, before all groups had the relevant knowledge.

This does not mean that extension policy educators never deal with values. No policy issue is ever divorced from the values, beliefs and emotions of the participants in the debate. This is appropriate, because even an undisputed fact will be viewed quite differently by people with different values and interests. But often the facts get confused with the values, hopes, emotions and general misconceptions of the participants. Part of the job of the policy educator is to help people separate fact from values, beliefs, wishful-thoughts, misconceptions and emotions. The values and emotions are appropriately included in the policy debate but a better understanding and analysis of the factual record can help everyone focus more clearly on the essence of the disagreement.

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[9] For a good discussion of issue cycles see Charles P. Gratto, "Public Policy Education – A Model with Emphasis on How," in *Increasing Understanding of Public Problems and Policies-1973*. Farm Foundation, Chicago, 1973. In that same publication the paper by B.L. Flinchbaugh ("Public Policy Education – A Model with Emphasis on What and When") and James C. Barron ("Public Policy Education – Whom Do We Teach") are also useful to read.

WHEN TO TEACH?

Some times are better than others for teaching about public policy issues. It is useless to attempt to educate people about a policy issue which they do not think is particularly relevant, important or pressing. On the other hand, if the policy debate has progressed (or degenerated) to the point where everyone has a strong opinion, leaders have expressed strong stands, personalities are closely entwined with specific positions, emotional outbursts are frequent and the debate is bitter and rancorous, an objective educational program may be ignored by almost everyone. There is a point most people have taken a position and no one wants to be confused (or embarrassed) by the facts. Policy education may not be impossible in these situations, but the effectiveness and the probability for success are much higher if the program is delivered before all the participants have publicly taken strong stands, and debate is less rigid and emotional.

Thus, the educator must seek the teachable moment—the time at which the issue is hot enough to capture people's interest, but not so hot that everyone's decision is made and the debate is becoming bitter. Taking advantage of the teachable moment means the educator must be able to foresee important issues and prepare educational materials before the issue becomes the center of public attention. In effect, the educator must invest his/her time and energy gambling that the issue will develop in a manner suitable for a public policy education program. This makes public policy education a high-risk operation. One determinant of success is the accuracy of the educator's predictions (or guesses) about future issues.

Identifying a good issue for a policy education program is more art than science. There are no secret tricks or simple worksheets for predicting which issues will be important some months or years into the future. However, many experienced county agents and state specialists are experts in forecasting the issues that will capture the attention of state and local decision-makers and the general public. These extension educators have one common trait—they listen well. They talk to a large number of people and listen carefully to people's concerns. These concerns are often translated into policy issues, sometimes by alert elected officials who are also listening carefully to their constituents. The ability to predict a future policy issue allows the extension educator to gather and analyze information and prepare educational materials before the "teachable moment" arrives.

The teachable moment concept also implies that the traditional process of statewide extension program planning may not work well for public policy education. Policy issues arise from a rather unpredictable political process. It may not be wise to attempt to predict the policy issues six to eighteen months in advance and then base the program plans of a large number of Extension faculty on these predictions. The probability, and the cost, of an inaccurate prediction might be quite high. On the other hand, it may pay to encourage small ad-hoc groups of specialists and agents to prepare educational materials and plan pilot programs in one or two counties where the agents feel certain the issue will be relevant. If the issue develops into a major state-wide policy debate, it would be relatively easy to expand the educational program statewide. Even if the issue fails to develop as anticipated, the investment in faculty time is minimized and the effort may still have been productive in one or two counties. Other planning models may be more appropriate, but it may be dangerous to rely on traditional planning methods for public policy education programs.

WHOM TO TEACH?

Whom to teach depends on the policy issue. Obviously, not all people are interested in any given issue, so the audience is dictated by the nature of the issue debated. Those most directly affected by the issue are the most likely target audience. However, it is important not to limit the audience to traditional extension clientele. Public policy education offers Extension a chance to expand its clientele—an opportunity which should not be neglected.

Decision-Makers vs. Public. A major question in public policy education is whether to focus the educational effort on the key decision-makers in the county and state, or whether to involve the broader public, or segments thereof, in the program. Often extension programs are focused on key decision-makers, based on arguments that: (1) if the goal of policy education is "better-informed judgements" then Extension's limited resources are best used informing those who will make the judgements; (2) the leaders, once educated, will in turn educate the general public; and/or (3) key leaders or decision-makers have the ability to immediately use the knowledge provided by the program.

The argument against focusing on key leaders or decision-makers is that: (1) if democracy is to function, a large cross-section of the citizenry must be aware of public policy issues, alternatives and consequences, so that the people can inform their representatives of their preferences; (2) if extension programs reach only the leaders, there is a danger that the democratic process is reversed—the leaders using the knowledge and information selectively to "explain" the issue, and their decision, to their uninformed constituents. In effect the argument to focus extension resources on decision-makers is equivalent to a trickle-down theory of education. The obvious problem is that the information may not trickle down, or that the information that does trickle down is highly selective and incomplete. The democratic system is based on the assumption that the people, not just the leaders, are able to use information to make intelligent decisions on public policy issues.

Although a strong case can be made against focusing extension public policy education programs exclusively on key leaders, it is sometimes simply not practical to do otherwise. In some cases faculty time or funds are so limited that only a few people can be reached with the program. In other cases a policy decision may be so imminent that there is simply not time to educate the broader public on the issue. Also, the state of the issue may be such that only a few decision-makers are demanding information—the broader public may simply not see the issue at some particular stage of the debate. Thus, whether to focus on leaders or the general public depends very much on the issue, the interest among the general public, the timing of a decision and the faculty time and funds available for the extension program.

Issues vs. Clientele. Although most policy educators focus on specific issues, some focus on a specific clientele and deal with all the issues affecting that clientele. Some county agents and state specialists work mostly with one or two clientele groups such as dairy farmers, vegetable growers or small retail merchants.[10] It would be natural for these faculty to focus a public policy education program on the groups they work with most closely. Some policy issues have their biggest impact within such a group, such as dairy price policies or downtown renewal. The agent will have good relations with the group, which will make it easier to talk openly about controversial topics. Focusing on specific clientele may also help build support for extension as an organization. On the other hand, not all issues fall neatly into the realm of one or another of Extension's clientele groups. Also, the extension faculty person may begin to identify too closely with the clientele group, jeopardizing his ability to view policy issues in a neutral, objective manner.

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[10] For a good discussion of some of the points in this section, see Vern House, *Shaping Public Policy*, op.cit., pp. 42-44.

NEUTRALITY AND OBJECTIVITY

The only absolute rule in public policy education is that the program and the information must be objective and as neutral as possible. The extension educator must strive to present the knowledge pertinent to the issue in an objective and unbiased manner. This means that the extension educator must not become an advocate of any specific position in the policy debate.

TWO MODELS

Teaching in the field of public policy education can follow one of two basic models. The first can be termed the *Advocacy Model*, in which the educator advocates one position or supports one group in the policy debate. The second model is the *Alternatives-Consequences Model*, in which the educator helps people analyze the policy alternatives and likely consequences of each, but does not advocate any particular decision.

The Advocacy Model has two variations. The first is rather simple—the educator examines the issue in light of his professional knowledge and his own values, identifies the policy alternative he believes is best for society and argues strongly for his position using his interpretation of the scientific evidence. If the educator works only with one clientele, such as dairy farmers, he may try to identify the policy he thinks would be best for that group.

In its second variation, the Advocacy Model is much more complex and is based on the argument that the extension educator should work to enhance the democratice process.[11] Three basic arguments are used to support this version: (1) the democratic process does not work well unless all groups affected by a decision are represented in the decision-making process; (2) education is never neutral because only those with power can use new knowledge effectively, so education could result in a *less* fair process of decision-making; (3) extension educators must logically either advocate a particular policy *choice*, or must advocate a fair and just democratic *process* by which social choice is made.

Therefore, the final argument is that Extension educators should be advocates of a fair democratic process, which means helping groups without power obtain better representation in the decision-making process.

The Alternatives-Consequences Model of policy education has two variations. In the most often used version, the educator helps people clarify the problem or issue, outlines the policy alternatives, presents the likely consequences of each alternative and then leaves the decision to the people and the democratic process. This version is used if: (1) the audience is large; (2) the audience is the general public; or (3) the education message (written or spoken) is directed at individuals with diverse values or interests in the issues.

A second version, which might be termed the *consequences-alternatives model*, can work if everyone in the clientele group has similar values and interests. In this case the group explains its objectives, then the educator helps them understand which policy alternatives might produce those consequences and which side effects, or other consequences, might also result. This version of the Alternatives-Consequences model is often used with a small, homogeneous group or with a single individual in an informal meeting. This modification of the model does not necessarily transform the educator into an advocate *if* his/her approach is objective and educational, and if the educator works with a variety of groups with conflicting interests and does not become too closely identified with any one group or point of view. This approach is useful and practical in many situations, but can also be more dangerous because: (1) the educator assumes that the group understands the basic problem, which may not be the case; (2) the educator must assume that the audience does, in fact, agree on the basic consequences desired, which also may not be the case; and (3) the educator risks being identified as an advocate unless he works with many groups with opposite viewpoints.

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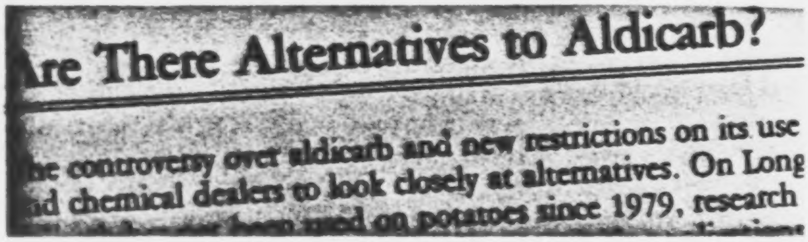
[11] This version of the Advocacy Model is very well articulated in two short articles by James H. Laue: "Coping with Conflict: Understanding Strategies and Developing Skills" and in "Value-Free Objective Educators". Both papers are contained in *Coping with Conflict: Strategies for Extension Community Development and Public Policy Professionals*, North Central Regional Center for Rural Development, Iowa State University, Ames, 1979.

The Alternatives-Consequences Model, or some variation of the model, is the most appropriate teaching method for public policy education. The arguments in its favor are: (1) the educator has no right to assume an advocacy position; (2) the educator is not necessarily trained or competent to assume the position of a professional advocate; (3) the advocacy method is ineffective and will eventually destroy the educator's credibility; (4) the Alternatives-Consequences model is more consistent with a democratic political system and the philosophical basis for public policy education. In the end, however, a program which is carefully designed and perfectly objective may be perceived as politically biased, and although apolitical in spirit, will generally not be politically neutral. These arguments will be briefly explored.

First, the educator has no right to assume an advocacy position. Public policy education involves public issues on which everyone is not agreed. Reasonable people disagree on the appropriate course for society, based on their values, attitudes and beliefs and their own interests at stake in the decision. Although the weight of objective evidence may occasionally be overwhelmingly in favor of one side of the policy debate, the vast majority of issues involve situations in which: (1) the necessary objective data are not all known; or (2) the known facts can be legitimately interpreted in two or more ways; or (3) the facts are known and have only one interpretation but different value systems lead individuals to choose different policy alternatives; or (4) combinations of the first three cases.

In the typical situation, for the educator to assume an advocacy position is tantamount to making the assertion that he has the only clear view of the facts, can make all the right interpretations and has the socially optimal or only correct set of values. If the society believed this, extension specialists and agents would be proclaimed philosopher-kings. Extension faculty were hired to be educators, so it is best not to assume the other role.

Second, the educator is not trained in the unscientific art of advocacy. The essence of science is the balanced weighing of evidence. *Advocacy* implies making a case for one side or another. *Science* implies a balanced consideration of facts on both sides of the issue. The extension educator is trained a a biological, social or physical scientist, not as an advocate.[12]



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Third, the Advocacy Model is not likely to be effective in the long run. If the extension educator advocates a particular position, he will alienate a part of the public that holds other positions. If the educator repeats his advocacy role on issue after issue, he eventually alienates virutally everyone. At some point his credibility declines to the point that he is no longer effective as an extension educator because no one is willing to

Rather than advocate a particular policy, the Extension educator is better off listing alternatives and explaining the likely consequences of each choice.

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[12] For a discussion of advocacy, scientific knowledge and the activities of scientists, see "Science, Values, and Human Judgement," by Kenneth R. Hammond and Leonard Adelman, *Science*, Vol. 22, pp. 389-396, October, 1976.

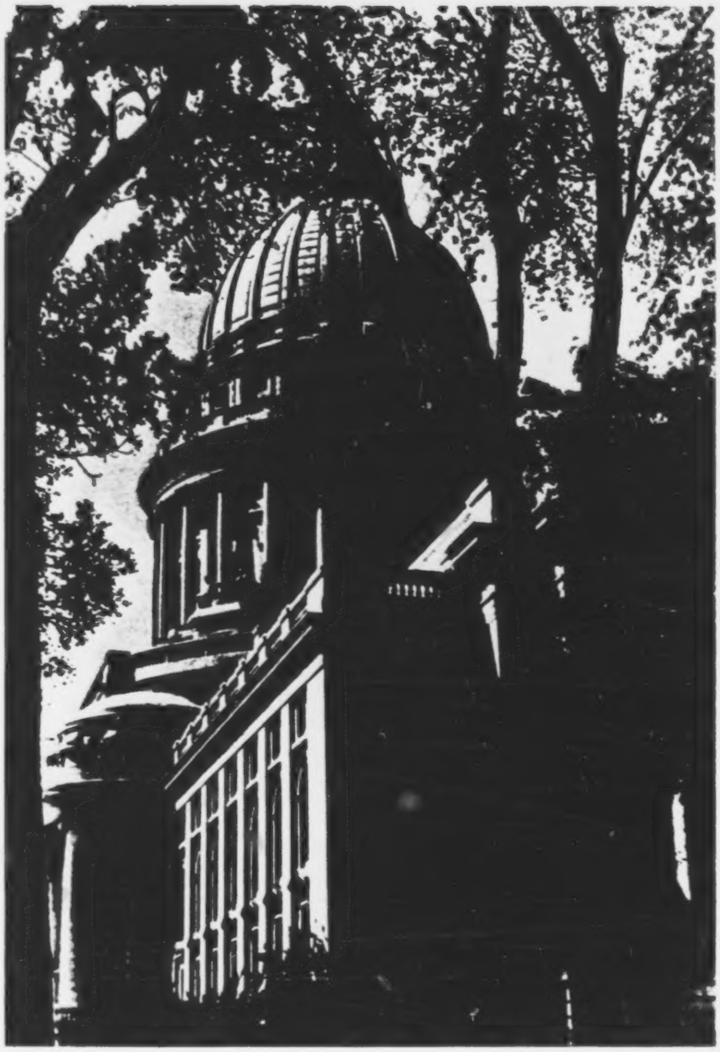
listen. Even those who focus exclusively on a single clientele group eventually lose credibility if they assume an advocacy position on each issue. Although their clientele may be united on some issues, the group may be strongly divided on others. Eventually the advocate will alienate almost everyone, even in the most narrowly-defined clientele group. The Advocacy Model is also potentially disastrous for Extension as an organization. If individual specialists and agents each choose the Advocacy Model on sensitive issues, they will collectively alienate just about everyone and reduce the level of support for Extension as a whole. Thus, the advocacy position may enable the educator to effectively advance his positions in the short-run, but in the long-run it is not tenable for the individual or for the Extension organization.

Fourth, the Alternatives-Consequences model is consistent with the democratic political system and general philosophy of public policy education. If citizens are to participate effectively in the political process, they must understand the policy issues, the policy alternatives and the likely consequences of each. The facts must be presented objectively, but the value judgements for selecting a single alternative must be applied by the people and their elected representatives, not by the educator. The representatives of the people are elected to make the necessary value judgements. They stand exposed to constitutents who can lobby them to influence their decisions and remove them from office if their value judgements do not coincide sufficiently with the public's. The educator's role is to make certain that the people and their representatives are presented with an objective analysis of the problem, the policy alternatives and their likely consequences. The choice is appropriately left to the people and to the political process. Our responsibility as educators is to teach people how to think, not to think for them.

A final set of criticisms can be leveled at the version of the Advocacy Model that claims the educator should work to help empower groups whose interests are not represented in the democratic process. First, the empowerment argument maintains that information is more valuable to those with power than to those without power. This is not always true, and in fact may very seldom be true. If the public is not informed about a problem or issue then those with decision-making power are free to do as they please with no threat of public reaction. Information is power, and information can help those outside the formal decision-making channel at least as much as those on the inside. Second, if the educator proposes to help empower those groups whose interests are not represented then (s)he must define what "adequate representation" means in a democracy. In an extreme case this might be fairly easy, e.g., everyone should be able to vote, hold office or speak freely. But in almost any practical situation it is never quite clear how much representation is enough and how much is too little. The educator must assume thr role of the philosopher-king in order to be this type of advocate. Finally, few would disagree that the democratic process works best when the "rules of the game" allow people to participate in making decisions that affect them. But these rules are not immutable—if we think that the interests of some groups are not adequately represented we can change the way the decision-making process works. For example, this is exactly what happened with the National Environmental Policy Act in the early 1970's which gave environmentalists a very strong voice in many decisions by establishing requirements for environmental impact statements. Most important for the educator is the fact that possible changes in the rules for making decisions can themselves be the subject of an objective educational program conducted in an alternatives-consequences framework. The educator can avoid becoming an advocate even when (s)he deals with issues that would change the relative power of various groups in the decision-making process.

THE EDUCATOR AS CITIZEN

None of this means that the educator cannot express his opinions on public issues or lobby his elected representatives *in his role as a private citizen*. The difficulty, of course, is that it is not so easy to separate the actions of the educator from those of the private citizen. For many extension educators the line between advocacy as an educator and advocacy as a private citizen is not totally clear. The more visible the educator's advocacy as a citizen, the more likely it is that (s)he will be perceived as an advocate in his (her) educational work. Many extension faculty who deal with public affairs consciously decide to engage in very little, or very low-key political activity off the job in order to avoid confusing the public as to which role they are playing. Others concentrate on national rather than state or local issues. This may help but will not always avoid the problem because local feelings may run as high on national issues as on issues closer to home. Often, county agents and state specialists (including the author) will take a temporary leave-of-absence to work in state or local government. Often this requires the individual to assume an advocacy position on some issues. But even if the individual follows a strictly objective program and tries to avoid advocacy, many people will assume that the individual is an advocate simply by his position in government. All of these concerns do not mean that public policy educators cannot exercise the political rights and freedoms of a U.S. citizen, nor does it mean that the educator, the extension organization and the state/local government should give up the great benefits that come when people move from one position to another. These issues are raised as a reminder that there is an inevitable trade-off between political or governmental activity on one hand and one's perceived objectivity and nonadvocacy on the other. Each individual must seek a balance that (s)he believes is appropriate.



Michael Venner

OBJECTIVITY AND POLITICAL NEUTRALITY

The relationship between objectivity and political neutrality should be explored carefully. Public policy education programs must be objective. Obviously, complete objectivity is humanly impossible, but people generally recognize and respect an effort to be as objective as possible.[13] The most important point is that the educator must avoid becoming an advocate for one group or one position on the issue. In striving for objectivity and avoiding advocacy the educator will in fact be trying to maintain a position of strict neutrality among the various interests active in the political debate.

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[13] For a similar argument on the importance of striving for objectivity, see J. Carroll Bottom, "Public Policy Education: Purpose Methodology, and Accomplishments" in *Increasing Understanding of Public Problems and Policies-1980*, Farm Foundation, Oak Brook, Ill. 1980.

However, objective information, an unbiased approach and lack of advocacy do *not* necessarily mean that the educator or his program is politically neutral. Political neutrality may be impossible to maintain because there is an inevitable bias in the issues we choose to address, and because simply discussing an issue may favor one group or another.

The issues we choose are influenced by our professional training and our own professional judgement about what is sufficiently important to warrant our attention. Also, we all tend to work on problems that our values tell us are important; we do not choose to work on things that we believe are bad or harmful. In fact, many people will assume that the educator is an advocate of some alternative or another, simply because (s)he chooses to talk or write about the issue.

An objective public policy education is also not politically neutral because it alters the political balance of power on the issue. First, when we conduct an educational program on a specific issue, we increase the public's awareness of that issue—hardly a politically neutral act even if the program is completely objective. Second, simply providing objective information to the public may upset the strategy of one side or another in the political debate. For example, when voters lack information on tax-increase referenda, they are more likely to vote *no*, other things being equal. Providing perfectly objective information on a tax-increase referendum is not politically neutral because it tends to favor a *yes* vote. Third, increasing a group's understanding of an issue increases its ability to effectively use whatever political leverage it may have. In fact, knowledge is power. An educational program will benefit groups without good knowledge of the issue more than groups that already clearly understood the policy alternatives and consequences.

Clearly, even the most objective and unbiased public policy education program will not be politically neutral. Objectivity and a non-advocacy method will not produce political neutrality. One implication is that even a perfectly objective public policy education program conducted in the alternatives-consequences manner runs some chance of generating political controversy with which the educator and other Extension faculty and administrators must deal.

On this point, Neill Schaller, former head of the Federal Extension Service noted that ". . . we cannot expect to be loved when we deal with controversy. But we will be widely respected if we do it right. So how do we make that happen? First, we should insist that those who teach and prepare materials resist the temptation or the pressure to take sides when dealing with a controversial issue. . ."[14]

Over the years, public policy educators have developed some teaching methods to reduce real or perceived bias in their information. Identifying the groups potentially affected by an issue/problem or its solution, and viewing the problem from *their* perspective can help ensure that the relevant alternatives and consequences are identified. Many public policy educators try to avoid classifying consequences as "advantages," "disadvantages" or "pro-con" because what is an advantage to one group may be a disadvantage to another.[15] Including "do nothing" as a policy alternative may help eliminate real or perceived bias and is often a useful way of illustrating the

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[14] Memo from W. Neill Schaller to State Extension Directors, November 27, 1978; Office of Deputy Director for Extension, Science and Education Administration, U.S. Department of Agriculture, Washington, D.C.

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[15] See Robert J. Bevins, "Defusing Public Decision," in *Community Decision Making*, University of Missouri-Columbia, Extension Division, no date.

extent of the problem. (Some educators may be tempted to advocate doing something but not advocating a specific action. Yet if the problem is obviously so bad the "do nothing" alternative will be quickly rejected by everyone). Asking leaders or others on all sides of the issue to review teaching materials can also help identify information that may be perceived as biased. But if one group is asked all should be asked. In the end, the ability to listen to others' views and to emphasize with others' perspectives is probably the best guarantee that the teaching materials and methods will avoid major bias, and that the educator will be perceived as striving for objectivity.

SUMMARY

Public policy education enables citizens to make better informed decisions on public issues. It is consistent with the mission of the Land Grant University and is based on a Jeffersonian view of the importance of education in the democratic political process.

To function effectively in public policy education the educator must have faith in the democratic process and in the ability of well-informed people to make good public decisions. As an organization, Extension must support its staff in policy education projects because even the most objective and unbiased program may generate political controversy.

A public policy education program must deal with the issues defined by the public, not those defined by extension educators. Not all issues are appropriate subjects for policy education programs; extension educators must have the necessary knowledge, the issue must be amenable to factual analysis, and the program must be ready at the teachable moment. The only absolute in public policy education is that the extension program should be as objective and unbiased as possible. Advocacy is not an effective or desirable teaching method; instead the educator should help people better understand the problem, the policy alternatives and their likely consequences. This method allows the educator to apply the knowledge of the university to public policy issues in a manner that strengthens public participation in the democratic decision-making process.

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Report of the Task Force on Public Policy Education in Home Economics,
Subcommittee on Home Economics, Extension Committee on Organization and Policy
June 1984

Hunger Tax reform plans Abuse Nutrition

Land use Energy proposals Toxic substances

Day care Food policy Health care Water

Retirement plans Housing Teenage pregnancy

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OBJECTIVES FOR PUBLIC POLICY EDUCATION IN EXTENSION HOME ECONOMICS

The objectives of public policy education in extension home economics are to:

- build awareness of the impact of public policy on families and understanding of issues affecting families;
- promote understanding of the policy-making process and identify strategies to increase citizen involvement in this process;
- increase individual and family members' knowledge of alternatives to and consequences of specific policy issues; and
- develop leadership skills as a means to increasing the involvement of individuals and family members in the policy-making process.

INTRODUCTION

If the democratic process depends on the participation of citizens, then the goal of a study of public issues is to create knowledgeable citizens who can raise issues, assess the effect of public actions, and contribute to this process.

Public policy education is a process whose goals are to help citizens in a democracy:

- clarify issues;
- gain access to knowledge that they can use in developing a range of alternative solutions to problems;
- evaluate the consequences of each proposed solution; and
- develop the skills needed to transmit their informed opinions to public decision makers.

> *Public policy education is based on the assumption that a well-informed citizenry is crucial to the democratic process and that the democratic process is a reasonable means of making decisions.*
>
> RICHARD BARROWS (1983)

The American public, in requesting assistance on family and community issues, has established public policy education as a legitimate program area for extension. Home economists in extension, who are familiar with research data and subject matter resources in public policy issues, play an increasingly important role as policy educators. To deliver effective educational programs that address these issues, extension home economists may need to redirect existing resources and skills.

Acting on the recommendations of its Subcommittee on Home Economics, the Extension Committee on Organization and Policy (ECOP) appointed a Task Force on Public Policy Education in Home Economics to provide guidance in program development.

This report, compiled by the task force, explains the historical background, reasons, and objectives for developing a public policy education program in extension home economics; outlines program components and implementation strategies; and suggests a framework for activities in public policy education within extension home economics and family-living programs.

> *Extension will provide educational programs which promote positive interrelationships between families and their communities.*
>
> ECOP TASK FORCE ON FAMILIES (1981)

HISTORY AND RATIONALE FOR PUBLIC POLICY EDUCATION IN HOME ECONOMICS

The mission of the Cooperative Extension Service – to disseminate research-based information that people can use to improve their daily lives – has always included a public policy education component.

Public policy education has been supported and even mandated by Congress, the U.S. Department of Agriculture (USDA), the ECOP, the Farm Foundation, and the National Association of State Universities and Land Grant Colleges (NASULGC).

Extension's involvement in public policy education began in the early 1920s with the development of programs in land use for farmers. In 1933, *The land-grant universities and the Cooperative Extension Service should significantly expand their research, teaching, and extension programs that relate to public affairs problems . . . even though it may mean dealing with controversial issues.*

COOPERATIVE EXTENSION SERVICE COMMITTEE ON POLICY (1969)

Home economics extension works to: . . . improve the ability to effect and adapt to . . . change by exploring solutions which deal with problems and concerns of individuals and families.

HOME ECONOMICS SUBCOMMITTEE OF ECOP (1974)

Viable, growing organizations must serve emerging needs and issues and incur some risk because the alternative of being "safe" is, in reality, also "risky."

RONALD C. POWERS (1979)

the nonprofit Farm Foundation encouraged extension to help farm families understand the social, economic, and political consequences of various agricultural policies, and in the years following World War II, a policy committee appointed by NASULGC called attention to the urgent need for education on public policy issues in the transition from war to peacetime.

Since 1948, when Congress encouraged land-grant universities to conduct educational programs in the area of public affairs, congressional leadership has listed public affairs education as one of nine high-priority program areas for extension. Today, extension's programs in public policy education address such diverse issues as food, the environment, energy, nutrition, state and local government finance, and international trade.

The USDA has also supported public policy education as a responsibility of extension. In 1968, the USDA challenged extension to "at least double its efforts in public affairs education."[1] In 1971, extension home economics was directed to focus on a number of areas, including "understanding of family-related public policy and laws related to consumption and citizenship."[2] In 1983, a USDA publication gave extension home economics responsibility for helping "individuals and families identify their needs, conserve their resources, achieve a desired level of living, and be informed participants in the evaluation and formulation of public policy."[3]

The ECOP has recommended that the Cooperative Extension Service expand its public affairs programming so as to help families acquire the knowledge and skills they need to take part in the decision-making process at all levels of government.

Public decisions can either increase or limit the alternatives available to people by mandating individual and group actions. The choice of one public policy initiative over another can magnify or diminish the impact on families. Issues currently under debate at all levels of government include proposed programs and policies in the following areas:

- energy costs;
- the consumer's right to product safety and information;
- health care needs and costs;
- child care;
- Social Security entitlement and benefits;
- parent/child relationships;
- environmental quality;
- teen pregnancy;
- availability and cost of an adequate food supply;
- cross-cultural and intergenerational relationships;
- the impact of media on children;
- the organization of work activities; and
- violence in the family and society.

Many special-interest groups are well represented in the public decision-making process. Their influence, however, reflects the values of a special constituency and is often based on a single, narrowly focused perspective.

Public policy education can broaden participation by involving diverse segments of the population. Extension home economists, who have knowledge about and access to the family-oriented research base of the

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1. A People and a Spirit. Report of the Joint USDA-NASULGC Study Committee on Cooperative Extension. Fort Collins: Colorado State University, November 1968.

2. Richard Barrows. Public Policy Education – Key Concepts and Methods. Ames: North Central Regional Extension, Iowa State University, 1983.

3. Sidney C. Cleveland. On the Extension Line. Vol. 13, no. 4. Ithaca, N.Y.: New York State Cooperative Extension, Cornell University, 1981.

home economics disciplines, can play a vital part in helping people make useful, informed contributions to this process. Because extension home economists draw information from the biological, physical, and social sciences with an emphasis on the interaction of people in families and communities, they are uniquely qualified to develop a range of alternative solutions to family problems.

ROLE OF EXTENSION HOME ECONOMISTS IN PUBLIC POLICY EDUCATION

The mission of home economics is to improve the economic and social well-being of individuals and families through education. Extension home economists can enhance this goal by increasing peoples' awareness of and ability to analyze issues and contribute to the policy-making process.

Extension home economists deal with public issues in existing home economics educational programs. For example, they identify day-care needs within child development programs, food policy issues within food and nutrition programs, and land-use policy within the context of a community's assessment of housing alternatives for the elderly. The program development framework of public policy education serves as a guide for educators addressing these important issues.

Through contact with families in extension programs, extension home economists gain a strong understanding of the dynamic interface between families and communities. Their professional background helps them view issues from the perspective of the people who are affected.

Participants in public policy education programs often feel they need training in information gathering and analysis, problem solving, and communication skills. Extension home economists, who are experienced in working with volunteer leaders through homemaker groups and 4-H youth programs, can use their experiences to assist program participants to develop competence in these areas.

Whether they are assisting people in identifying family and community dimensions of problems or serving as a source of information, extension home economists have access to research-based data that can help people reach objective decisions. As public policy educators, they can provide this help in an accurate and unbiased fashion, thus facilitating informed decision making on the part of individuals and families.

COMPONENTS OF PUBLIC POLICY EDUCATION PROGRAMS IN HOME ECONOMICS

Extension's current public policy education programs have four separate and distinct components:

- building awareness of the impact of public policies on families and understanding of issues affecting families;
- promoting understanding of the policy-making process and identifying strategies to increase involvement in this process;
- increasing people's knowledge of alternatives to and consequences of specific policies; and
- developing leadership skills as a means to increasing involvement in the policy-making process.

Building Awareness of the Impact of Public Policies

Perhaps the most important goal of extension's public policy education program is to increase awareness of the impact of public policy decisions on families. Laws, regulations, and court rulings can affect the primary functions of families, such as:

> *Maximum effectiveness of the public affairs educator will more likely be achieved through some optimum combination of several channels of communication than by reliance upon a single channel.*
>
> COOPERATIVE EXTENSION SERVICE COMMITTEE ON POLICY (1969)

> *The aim of Extension Home Economics is to help people use knowledge to better their everyday lives.*
>
> LUCINDA NOBLE (1983)

> *It is the change in conditions about food and nutrition, housing, safety of household equipment and fabrics, local government and land use that have made what used to be straightforward objective extension education on these topics a part of the policy process.*
>
> R. J. HILDRETH (1979)

This country needs more public affairs participants who are informed, understanding, and responsible. To produce such men and women is the major goal of public affairs education. Our future as a democracy rests upon both the quality and the quantity of citizen participation.

COOPERATIVE EXTENSION SERVICE COMMITTEE ON POLICY (1969)

The demands of our extension audience for policy education have changed. The audience wants more sophisticated information on a much wider range of issues.

EDWIN KIRBY (1975)

Families in the 1980s cope with the cumulative effects of several decades of change.

MARY NELL GREENWOOD (1981)

The home economists are sensitive to many issues . . . issues that deserve solid, professional, educational intervention.

VERNE HOUSE (1981)

- membership function – policies dealing with adoption, foster care, family separation, death, divorce, birth, or marriage;
- nurturing function – issues affecting day care, education, and health;
- economic function – policies affecting family income or how income may be spent;
- coordinating and mediating function – decisions recognizing the diversity of family lifestyles and allowing for individual and family input;

Policy education programs should help audiences understand that public decisions affect different families in different ways, depending on their composition, demographics, ethnic background, and members' educational backgrounds.

Promoting Understanding of the Policy-Making Process

If programs in public policy education are to increase understanding of the policy-making process and identify methods for interacting in that process, they should not be limited to a review of the history and organization of government. Effective programming must also include opportunities for participants to develop knowledge about the following issues:

- The legal authority of the policy-making unit, including such topics as:
  - mandates and constraints on the decision-making process;
  - laws governing citizens' rights to participate in and influence government;
  - background on laws and regulations;
  - background on how interpretations of laws change; and
  - alternative processes for changing laws;
- The fiscal implications of policy, including:
  - short- and long-term costs of implementing alternative policies;
  - sources of government funding;
  - factors that influence the availability of funding;
  - budget terms and processes; and
  - political priorities for spending;
- The formal and informal forces in society that influence change:
  - society's standards for government's role in the social, economic, and educational life of the community;
  - level of services expected from social service agencies and government;
  - the role of individual values and attitudes in shaping public decisions;
  - the role of the courts;
  - the role of political parties in government;
  - the influence of special-interest groups; and
  - an understanding of power and how it is exercised.

Increasing People's Knowledge about Policy Issues

To increase people's knowledge about policy issues, they must be given an opportunity to participate in a variety of planned experiences and to practice what they have learned. Extension policy educators have successfully used the alternatives/consequences problem-solving model to facilitate this process. The following steps are included in this model:

- select and clearly define an issue or problem;
- develop a wide range of alternative solutions to the problem;

- explore the consequences of these alternatives, including comparing the costs and benefits of each proposal for all segments of the population; and
- help individuals obtain the information and acquire the skills needed to participate effectively in the policy-making process.

Developing Leadership Skills

Leadership development has traditionally been a part of all extension programming. Within public policy education in home economics, leadership training emphasizes three major interrelated areas:

- enhancing personal leadership skills;
- clarifying organizational concepts; and
- developing the skills necessary to participate effectively in shaping policy in one's community.

The leadership development component of public policy education within home economics is unique in that potential rather than established leaders are frequently the program audience. Therefore, extension home economists will often work with family members to enhance self-confidence in preparation for taking leadership roles.

The arena the audience chooses for implementing these skills determines whether or not this training can be seen as public policy education. Thus all leadership development training is not public policy education, and leadership development is only one part of public policy education.

MAJOR CONSIDERATIONS IN PROGRAM DEVELOPMENT

Programs in public policy education, which seek to achieve broad, complex goals, should provide a series of interrelated learning experiences that integrate knowledge and understanding from a progression of program components.

Although each component can be a focus for the development of educational experiences, it is the continuum of learning that prepares people to become effective participants in public decision making. The continuum leads from awareness to understanding to increased knowledge to identifying alternatives and consequences of choices to acquiring leadership skills.

Public policy education is an area in which extension can expand its clientele. It is therefore important to involve people outside the traditional audience for extension home economics programming. The particular audience for a given public policy education program depends on the issue being addressed, while recognizing that diversity in clientele promotes dialogue and increases potential for discovering a new approach.

In developing audiences for programs in public policy education, the following people should be encouraged to participate:

- people affected by the problem;
- people with an interest in community affairs;
- people who can influence how the problem is resolved; and
- the general public.

In exploring a public issue, a range of individual and group perceptions should be included. Increasing awareness and understanding may be the most complex part of extension's role in public policy education for families.

It is the responsibility of the extension educator to ensure that all sides of an issue are discussed and that all factions have an opportunity to contribute to its resolution. Structuring discussion so that all viewpoints are presented in as objective and neutral a manner as possible is a major responsibility of the program developer.

Cooperative Extension: It is a process of leadership development for the community, state, and national organizations. It is a process of life enrichment and individual fulfillment. It is a process for people to define and learn skills to meet their most urgent needs now and in the future.

ECOP (1979)

Goals are expressions of what people want . . . of "what ought to be." The educator is responsible for helping people examine goals but . . . not . . . to tell them "what ought to be."

COOPERATIVE EXTENSION SERVICE COMMITTEE ON POLICY (1969)

Each time one of us slips from objective methodology into advocate roles, the capacity to articulate and communicate is severely constrained.

WILLIAM W. WOOD, JR. (1980)

Evaluating the impact of extension's efforts in public policy education is a vital element in the design of the program. Evaluation can provide extension educators and key leaders with important information about program effectiveness that can be used to build and improve programs and to ensure support for future efforts.

CONCLUSION

> *In accountability, we need to relate the learning changes we bring about to the ultimate tangible product or practice that affects communities.*
>
> SARA M. STEELE (1978)

For our democratic form of government to function effectively, citizens must participate. Democracy works best when the full spectrum of the citizenry, with its diverse interests and needs, gives direction to policy makers. When that influence comes from citizens whose ideas are based on knowledge and an understanding of issues, the system is further strengthened.

If democracy is to serve as well in the future as it has in the past, families need to be involved. Many policy decisions have implications for families, yet often there is no advocate to represent their interests. Therefore, the major goal of public policy education in home economics is to help people effectively represent their families' interests in the formation of public policy.

To make an active, vital contribution to shaping the policies that govern them, families need to understand the public decision-making process. They need information on issues and the skills to interact effectively with policy makers. Furthermore, as they become more involved, individuals and families must develop an awareness of the far-reaching effects of public decisions.

> *The function of public policy education is to teach people so they can analyze public issues on the basis of objective facts and principles.*
>
> BONNIE MCGEE (1980)

In accepting the challenge of public policy education, extension home economists have an opportunity to increase the scope of their profession. Thoughtful consideration of community needs and consultation with extension staff and leadership are essential.

As professionals who are concerned about the future well-being of families, extension home economists must take the lead in strengthening family participation in the democratic decision-making process through public policy education.

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Objectives

What are Objectives?

Objective(s)[1] *state the intended changes in individuals, client groups, or communities* as a result of Extension programs. They are *not* lists of activities, methods, events, media, number of participants or enrollments, or Extension in-house preparation. All these are *ways* to achieve objectives. Clear and specific objectives:

> Are derived **directly from the problems and gaps** documented in the situation description;
>
> **Communicate,** and thus build cooperation and teamwork;
>
> **Guide selection of methods and experiences** to resolve problems;
>
> Indicate what **can be measured** to determine program results or outcomes;
>
> Are consistent with **estimated results/impacts** identified in the major program plan.[2]

We have tried to be all things to all people. We don't have the resources to do this.
Minnesota Extension Agent

Determine Scope of Objectives

Before objectives are set, review again the "what is" against the "what should be" described in the situation. The "gap" between what needs to be learned and practiced to change the situation, and the present level of knowledge and practices among the targeted clientele becomes the basis for determining major program objectives.

Quite likely, the written situation statement gives a "big picture" of the problem. Moving from this broad, general statement to specifics about what changes the major program is expected to achieve in the four years of the program cycle is the next step in developing the major program. At this point, Extension professionals make key decisions about what can and ought to be done to address the problem. Objectives—statements which convey these intentions—translate the many possibilities implicit in the situation into specifics which will guide action plans to "make things happen." They also become a guide for planning which program results to measure.

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[1] The word objectives is often used interchangeably with the word "goals"; many persons consider goals to be more general and objectives to be more specific; regardless, we are referring to basically the same concept, which is the intended destination, results, clientele changes, or outcomes of our major program efforts. Clarify how you are using different terms, and refer to *Cooperative Extension System Reporting Guidelines*, which uses the term "objectives" to mean specific and measurable changes expected to result from Extension programs.

[2] Page two of the major program plan form asks for this information. See Section IV of this handbook, page   , and *Cooperative Extension System Reporting Guidelines, October 1, 1987–September 30, 1991.*

Extension should focus on mission, goals, priorities that are realistically achievable given our current and projected resources.
Pennsylvania Extension Agent

Keep Objectives Realistic

What can be accomplished in one four-year program cycle to solve the problem being addressed by the major program? Focusing on selected aspects of the problem, or identifying particular clientele groups for intensive effort, can greatly increase the potential for the major program to have visible results.

At this point, it may help to make a list of possible program objectives to:

Determine which are most central to solving the clientele problem,

Determine which ones need attention first, and

Eliminate low priority objectives.[1]

If some objectives identified in the first and second categories cannot all be accomplished in four years, consider dividing the program into phases to be worked out sequentially over several four-year program cycles.

Include Measurable Content in Objectives

Major program objectives are statements of specific intended outcomes which can be measured.[2] They also specify the target clientele. Use unmodified generic terms only when an entire group is the target (e.g., farmers, the public, youth, families).

Use as few objectives as needed to specifically and concisely state what the major program expects to accomplish by the end of the four-year program cycle.

Outcomes are usually stated in terms of knowledge to be learned, practices to be adopted, or end results to be achieved after the many sequential learning experiences Extension provides during the "life" of the major program.

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[1] **Forest, Laverne B.** and **Sheila Mulcahy,** *First Things First: A Handbook of Priority Setting in Extension.* University of Wisconsin–Extension, Madison, Wisconsin, 1976.

This practical handbook is part of a total audio-visual instructional package on the topics of priority setting. It focuses specifically on Extension priority setting and includes examples from all program areas. It includes very generalizable concepts and models on decision making and involvement, and examples of criteria to help set priorities.

[2] **Mager, Robert F.,** *Preparing Instructional Objectives,* 2nd Edition. Belmont, CA: Pitman Learning, Inc., 1984.

Though specifically about setting classroom objectives, this short book can be helpful in setting and writing goals and impact indicators. It gives ideas on objectives as Mager defines them, why we should care about them, and qualities of useful objectives. The keys are: be clear, precise, and behavioral.

Gronlund, Norman E., *Stating Objectives for Classroom Instruction,* 2nd Edition. New York: Macmillan Publishing Co., Inc., 1978.

A practical guide to stating objectives, this short book focuses on helping you identify and write about intended client performance or behavior after you have provided activities, meetings, newsletters, and other experiences.

Because objectives need to be realistic, they do not necessarily represent the ultimate results possible or desired with reference to the problem being addressed by the major program.

Major program results estimates contained in the objectives, guide measurements of actual program accomplishments. This is a legitimate expectation for an organization using public funds.

Well-written objectives leave no room for doubting what will constitute evidence of their achievement. Note that:

> Visible, quantifiable clientele accomplishments may not necessarily be attained every year of the program cycle, but may accrue over time as objectives are met.
>
> Objectives may be quantitative and/or qualitative. It is desirable to quantify qualitative objectives whenever possible.

Working With Our Publics

In-Service Education
for Cooperative Extension

Module 2
The Extension Education Process

Transparency Masters

Purpose of developing objectives:

1. To be able to write measurable objectives; and

2. To be prepared for translating needs to objectives.

Objectives reflect:

1. Mission statements that
   - -- help target publics;
   - -- help identify needs.

2. Current priorities:
   - -- for resource allocation; and
   - -- to reflect changing needs.

Objectives relate to situation statements

-- Situation statement is broad
-- Objectives become more specific
and operational

Objectives reflect the “learning gap”

-- Reflect what should be; and
-- Are based in realism of “what is.”

Objectives use situational analysis:

-- Are based on clear definition of the problem.

-- Insight enhances accuracy of objective.

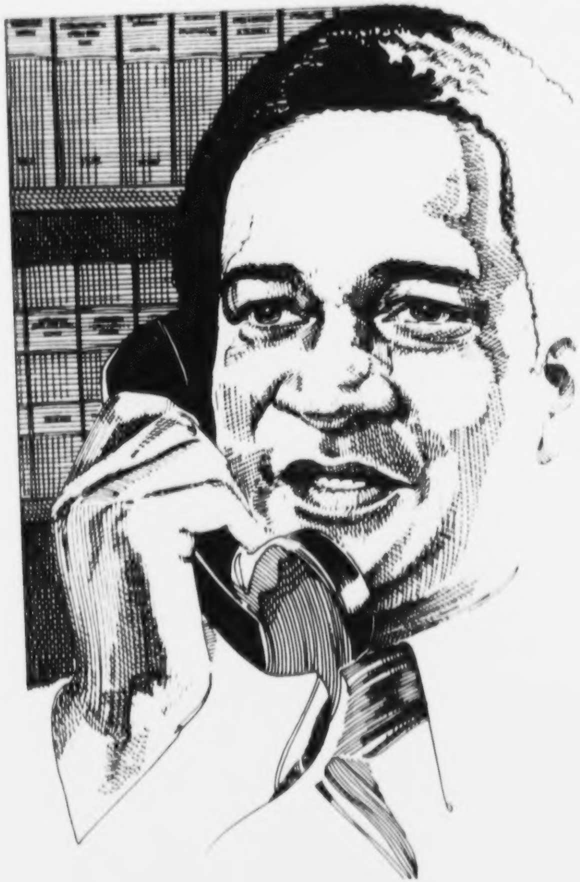
Educational Objectives are:

-- Learner focused; and
-- Collaborative in identifying
desired results.

Management objectives (an example of another kind of objective) are:

- Resource focused
- Expectations of performance and outcomes.

PRINT



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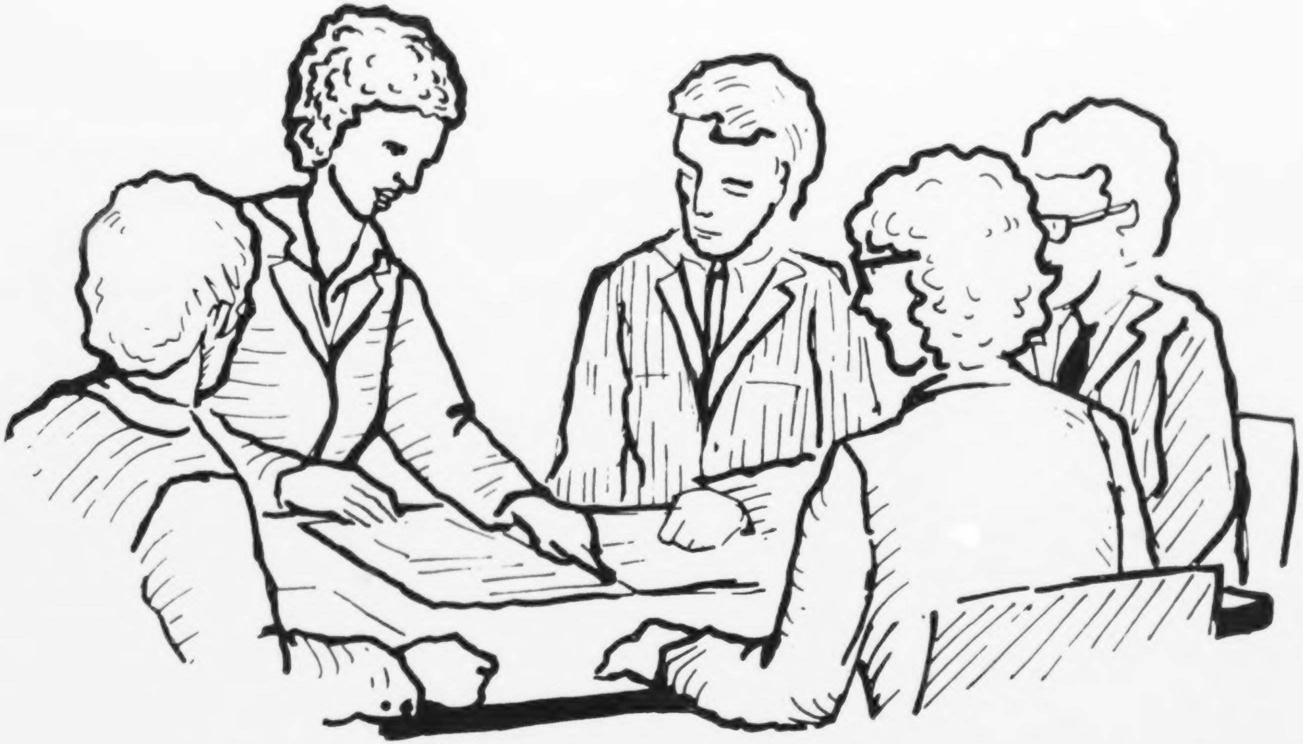

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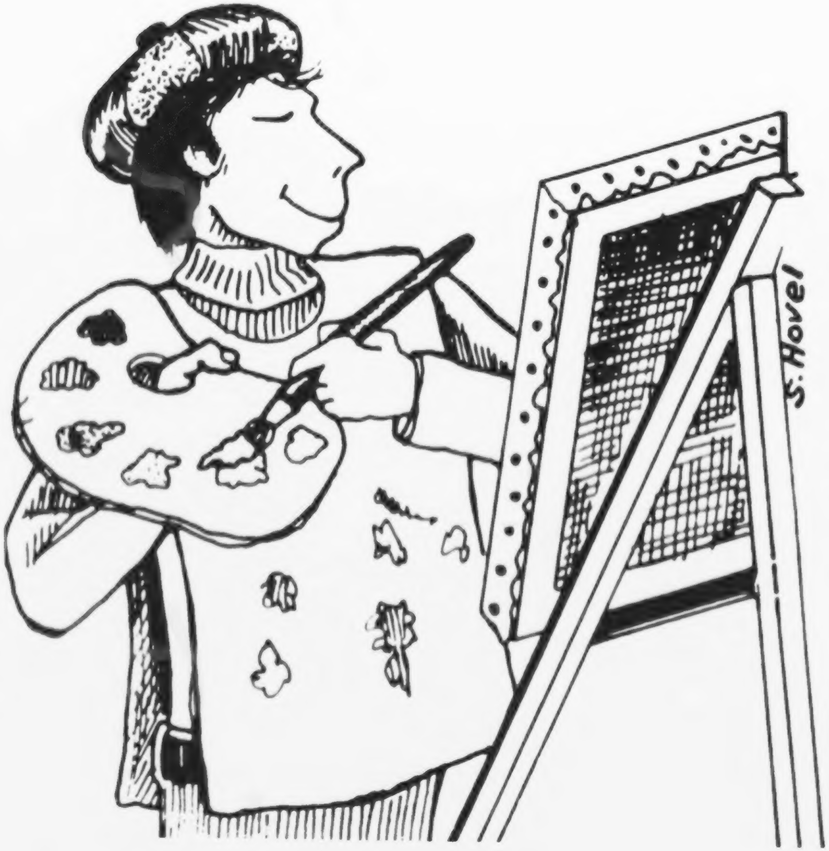
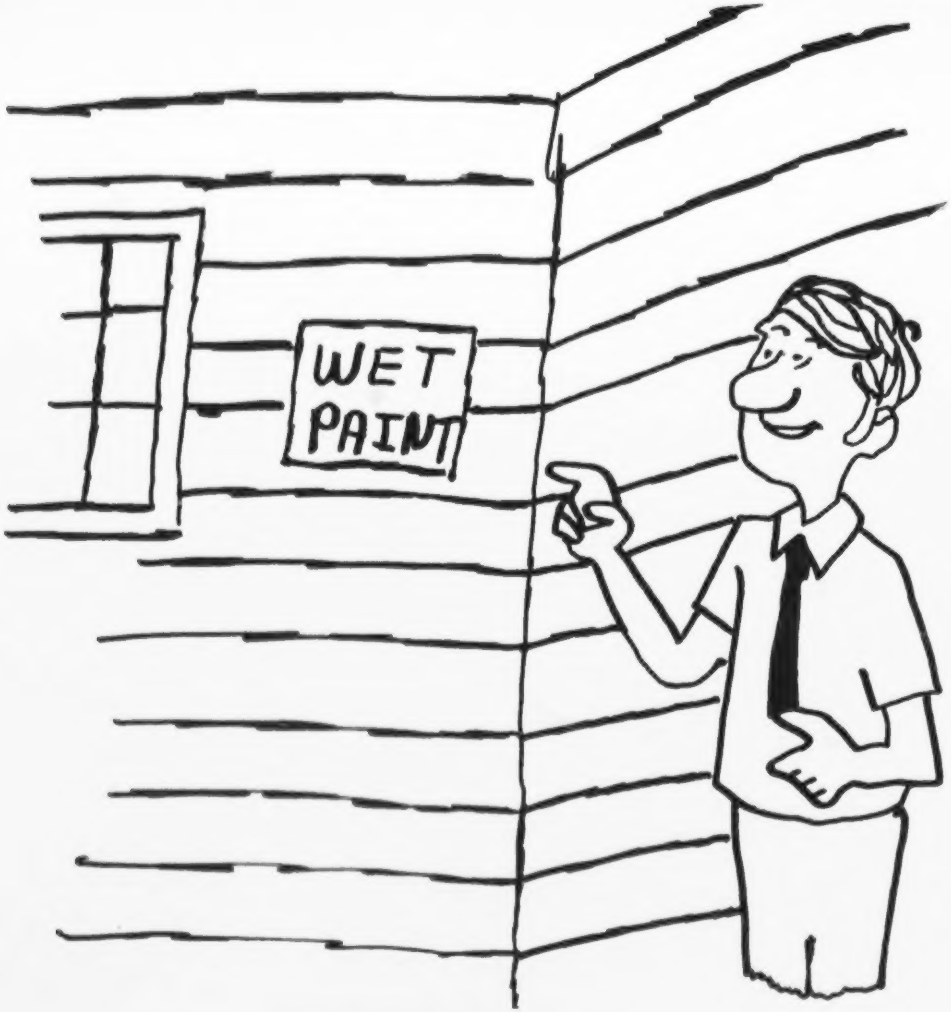


VISUAL



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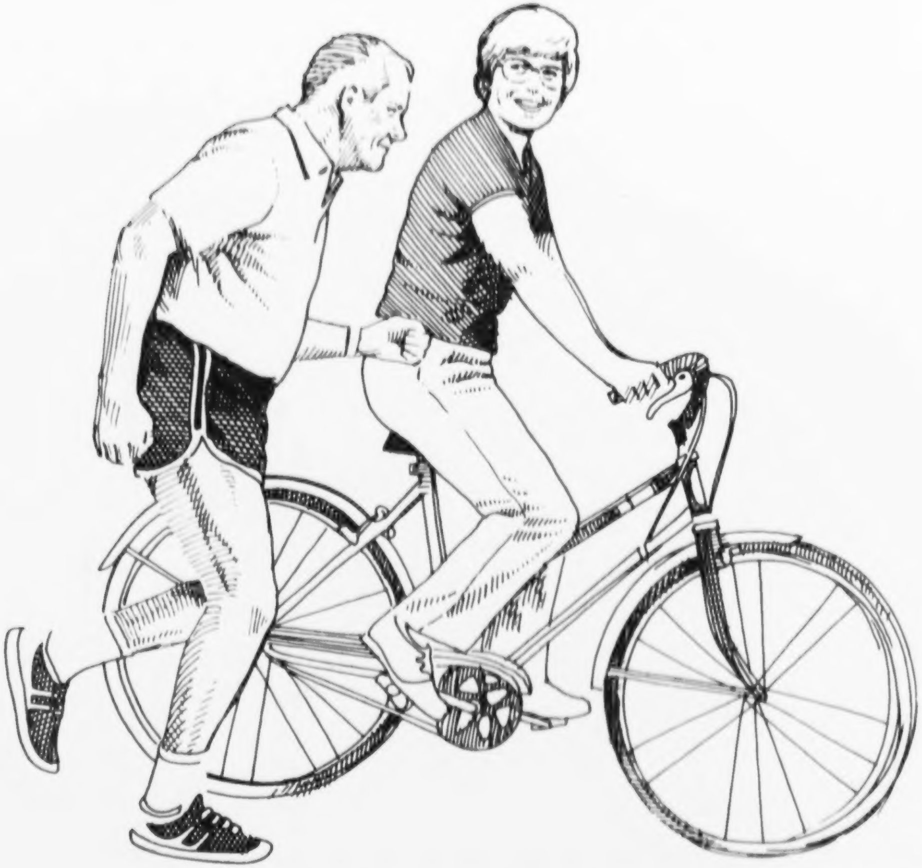

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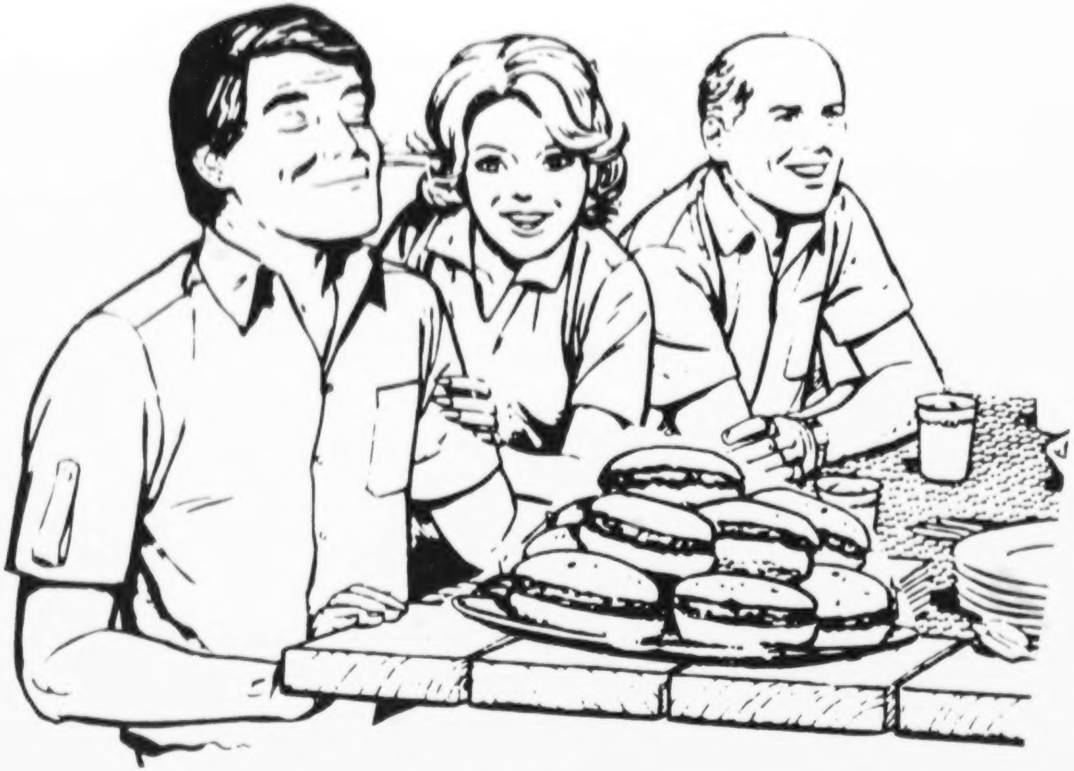

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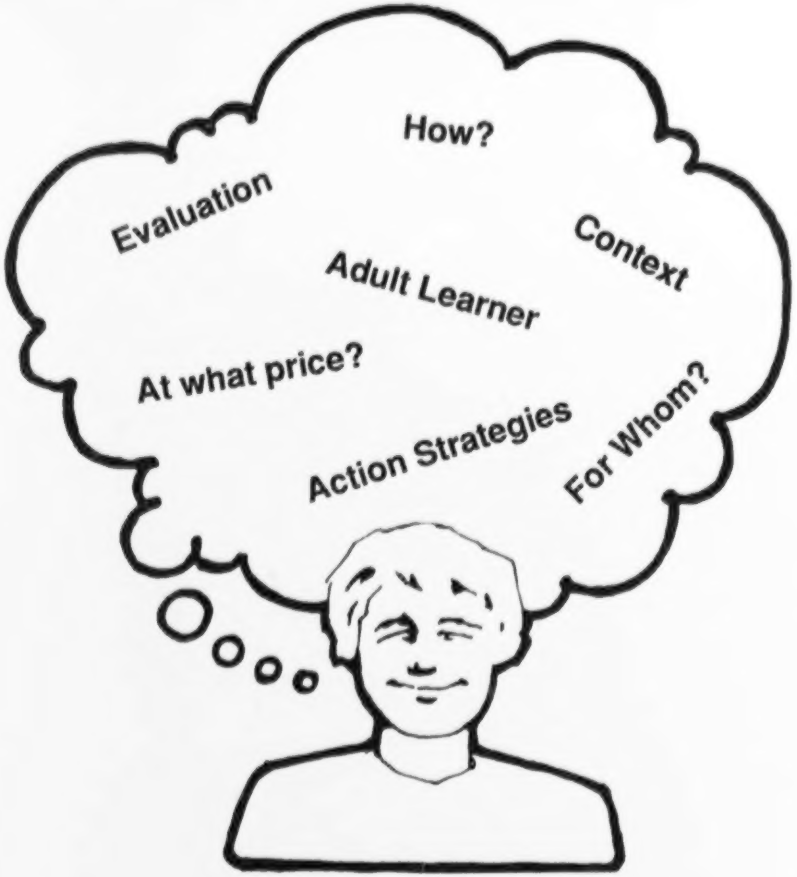
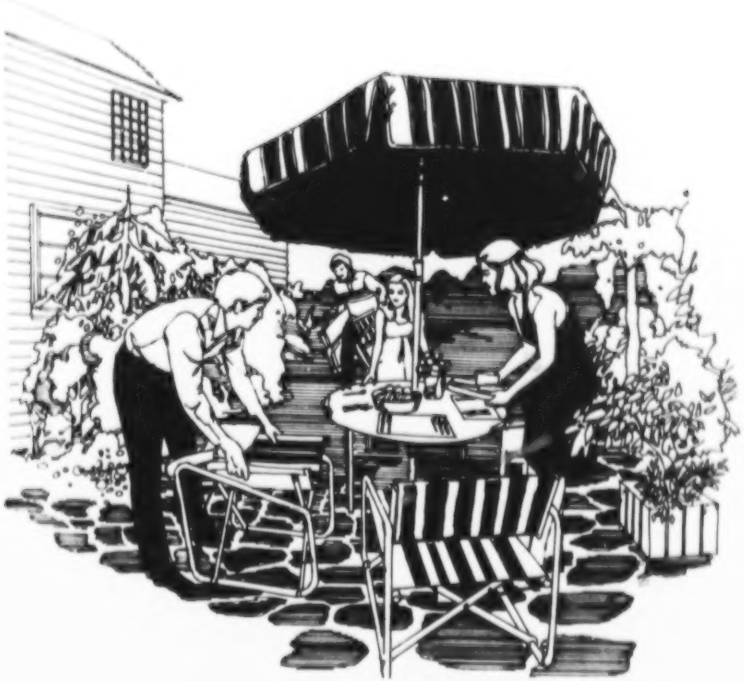
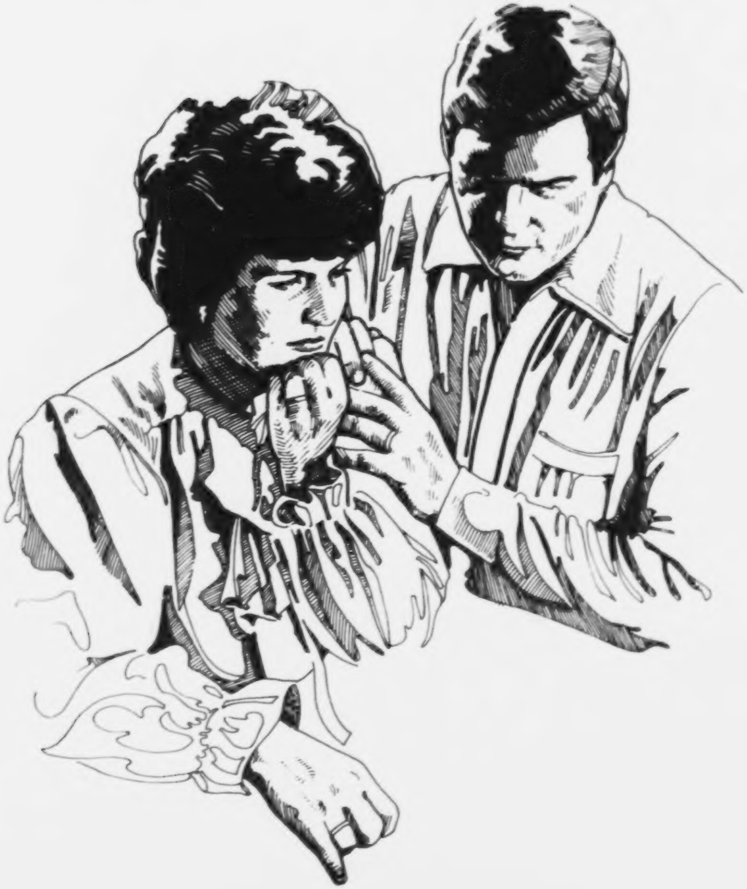

How?
Evaluation
Context
Adult Learner
At what price?
Action Strategies
For Whom?

COGNITIVE



SOCIAL



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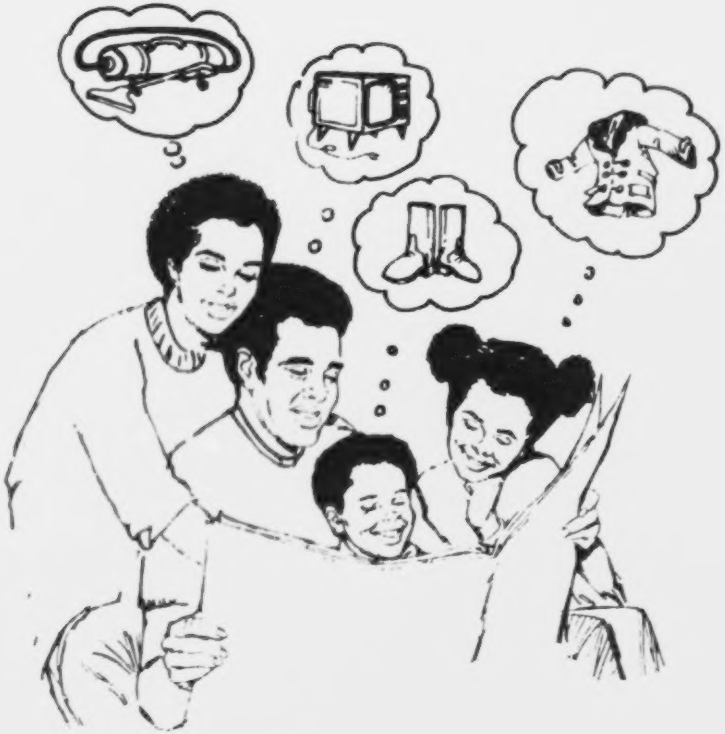

PERCEPTUAL